Lecture
ON THE
TREATMENT OF PHTHISIS IN ITS EARLIER STAGES.

Delivered at the Hospital for Consumption, Brompton,

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(*Concluded from p. 150.*)

NIGHT perspiration, although perhaps a more prominent symptom in advanced phthisis, is sufficiently common in the earlier stages of the disease, and inasmuch as the loss which it entails exhausts the patient, and often disturbs sleep, it calls for prompt treatment. This symptom you will remember is usually much diminished, and often entirely prevented, by giving the patient some nourishment the last thing at night, just before going off to sleep. Some egg and milk, with or without a little brandy, or a teacupful of strong beef-tea, will answer this purpose. If this fail, some drug must be administered. Many substances have been used with more or less success, but the two most generally useful are belladonna and oxide of zinc. These may be given separately or combined. The pill we use here, consisting of from a quarter to half a grain of the extract of belladonna and from two to three grains of oxide of zinc, given at bedtime, is what I generally employ, and it rarely fails to effect the desired end. The belladonna extract must, of course, be a good one; and if there be any doubt about this, the much more reliable preparation, atropine, should be substituted for it. While using these remedies, the nourishment, the last thing at night, should not be omitted, as without it the drugs sometimes fail.

We must now say a few words respecting that much less common class of cases which are characterised by an acute febrile onset, and allude to the treatment of the pyrexia of phthisis generally. You will remember the two causes of this pyrexia, the progressive phthisical implication of the lung, and the absorption of the disintegrating pulmonary consolidation; the former giving rise to a more continued, the latter to a more remittent, type of fever: and that although the elevation of temperature is usually due to the combined results of both, cases are often met with in which the one or the other predominates. In the treatment of phthisis during the pyrexial stage, whether at the onset or at any subsequent period of the illness, the most important indication is to secure complete rest. I would especially insist upon this in the earliest stages of the disease, which we are now considering. The prospects of many cases of incipient phthisis depend, I believe, to a greater extent than is generally supposed upon whether or not the pyrexial periods are recognised and treated. The amount of surveillance necessary will depend to some extent upon the degree of the pyrexia. When this is slight, the afternoon temperature perhaps not being more than 99·5° or 100° F., it may not be necessary to keep the patient entirely confined to one room, but a certain amount of freedom may be permitted. With regard to therapeutics, attempts to influence the pyrexia of phthisis by drugs are not, as you are aware, attended by very satisfactory results. It is also difficult to estimate the value of remedies, inasmuch as the pyrexia naturally runs an irregularly intermittent course, a temperature of 102° or 103° F., for example, often becoming normal in a few days without even the treatment of rest in bed. The drugs, I think, which are most generally useful in these cases are quinine and digitalis; not that they always, or indeed often, make much difference to the temperature chart, but they appear to exercise a favourable influence upon the nervous system and circulation during the pyrexial period. From two to five grains of quinine with a grain of powdered digitalis should be given in the form of a pill two or three times in the twenty-four hours. A citrate of potash or some other saline mixture may at the same time be advantageously administered at shorter intervals. Such treatment is, I believe, advantageous both in the more continued fever which indicates progress of the disease, and also in the remittent type accompanying softening. In the latter, where the area of softening consolidation is considerable, the prostration is often such as to require the exhibition of alcohol, a remedy which is usually best avoided during the earlier stages of progressive implication of the lung.

Lastly, in connexion with this part of our subject we come to the question of climate, the consideration of which becomes an important element in any satisfactory treatment of a large proportion of the cases of phthisis. I need scarcely say, however, that it is impossible now to do much more than allude to it. There are two ways in which climate favourably influences the progress of early phthisis:—(1) By its invigorating effect and consequent power of improving the general health; and (2) by its local influence on the diseased lung. Of these the former is probably much the more important; and I would again repeat my belief that climate is useful in the early stages of phthisis just in so far as by stimulating the several nutritive processes it tends to promote a vigorous state of health. The continuously increasing evidence in favour of high altitudes and of dry bracing climates generally tends, I think, to support this view; for is not the beneficial influence of such climates to be attributed rather to the stimulation of appetite, digestion, circulation, and respiration, which they necessitate, than to any local influence? We are speaking, of course, of early phthisis or of cases in which there is but little pulmonary implication. When the lungs are extensively involved the respiratory function is so much interfered with that such climates are usually distinctly contra-indicated. Respecting the other way in which climate is beneficial—by its influence on the diseased lung—you will remember the value of the non-irritating influence of a moderately dry and equable temperature; and also that the expansion of the lungs, which high altitudes tend to promote, appears to favour the limitation of the phthisical process.

With regard to the practical application of this climate treatment, I would say, in the first place, be careful how you send your patients away whilst the disease is progressing. During periods of febrile movement most cases are best at or near home. Wait for a period of quiescence, which will usually soon come, before attempting a removal. In the second place, even when the absence of pyrexia and other circumstances render change of climate desirable, it is often wiser at the outset not to send the patient too far from home. A home station is often better to begin with than a foreign one. I cannot help thinking that there is rather a tendency at the present day to be too precipitate in our orders for banishment. Are we not apt to send our patients to Queensland, New Zealand, or some other remote part of the globe before sufficient time has been allowed to form any reliable opinion as to the probably course of the disease? We have health resorts at home with climates sufficiently equable, dry and bracing, and with enough of sun to exercise a most favourable influence upon the progress of most cases of phthisis, and I would venture to urge the desirability of utilising these for a few months, at all events, before having recourse to the more distant and undoubtedly more valuable stations. By so doing patients often improve considerably in health, and are thus better able to face all the difficulties attendant upon a more prolonged departure from home; and time is allowed for observation, so that the prospects of the case can often be more satisfactorily determined. These remarks hardly apply to Davos, St. Moritz, and the other Alpine resorts, so eminently useful in early phthisis, as these places are of such easy access and so replete with comforts that they may be almost regarded as home stations.

We now come to the second division of our subject—the indications for treatment afforded by the pathological probability that there exists some condition of the higher portions of the lungs, probably a tendency to slowing of the circulation, which favours the development of the phthisical process. The indications here apply, for the most part, to the prevention of the disease. A tendency to slowing of the circulation can be counteracted by promoting the full expansion of the lungs, and the value of properly regulated calisthenic exercises and of other measures which favour the development of the respiratory muscles as an auxiliary to treatment which has for its object the prevention of phthisis can, I think, scarcely be questioned. When the disease is established, its tendency to extend is mainly owing to the infectiveness of the local lesion, and the utility of such treatment is then certainly doubtful; when actively progressing, the treatment is distinctly contra-indicated. The

very opposite procedure has, as you are aware, been recommended by Dr. Roberts and others—an attempt to restrain the respiratory movements in the upper portions of the chest by means of strapping and other mechanical appliances. Whether such treatment is useful I hesitate to express an opinion; but it would appear to me that it is only likely to be so in some few cases—perhaps more especially in the earliest stages of acute and localised processes. On the other hand, inasmuch as by thus restricting the respiratory movements we tend to diminish the activity of the pulmonary circulation, and thus to interfere with the absorption of inflammatory products, such treatment would appear to be contra-indicated in cases where the disease is not active, and where much intra-alveolar matter exists which is capable of removal. The treatment we have already considered directed to the improvement of the general health must have a most important influence in counteracting any tendency to stagnation of the pulmonary circulation, and also in preventing that leaking from the vessels which the stagnation tends to produce.

There are two other points connected with the local lesion which are perhaps most conveniently alluded to here: the value of local applications to the chest, and the treatment of early hæmoptysis. Some form of local application, either poultice, liniment, or blistering agent, is so constantly resorted to in phthisis that treatment seems to be incomplete without it. In cases of early phthisis with acute febrile symptoms, warm moist applications over the diseased lung, either linseed and mustard poultices, or, what is better, a spongio fomentation sprinkled with some stimulating liniment, are doubtless useful. They certainly in many cases relieve cough, and probably influence favourably the inflammatory process. In the ordinary less acute cases such applications at night are also often of service in relieving cough. Strong counter-irritants, such as iodine and cantharides, are, I believe, most useful in the later stages of the disease, especially where there is cavity formation. In chronic cavity they seem to have the power of diminishing the secretion. They are useful also in all cases where there is pleuritic pain. Whether they influence the phthisical process in any other way I am unable to express an opinion.

On the treatment of the hæmoptysis of early phthisis I would offer only one or two suggestions. In the first place remember that this form of hæmorrhage is capillary, and tends to cease spontaneously, and that although it is a serious symptom, and one that requires most careful treatment, our anxiety is not so much on account of the bleeding as of the progress of the phthisical process which is so apt to result from it. With the latter we are not now concerned. Do not be too precipitate, therefore, in the administration of drug remedies. The practice of plying the patient with large doses of gallic acid, or some other astringent, as soon as some hæmorrhage occurs, is, I believe, a bad one. The remedies often do much harm to the stomach and no good to the lung. With the first sign of hæmoptysis absolute rest in bed should be enjoined, and it should be maintained for several days, even if the bleeding is slight and does not recur. The indication next in importance is to keep the patient warm. The bedroom should be airy and well ventilated, but the temperature should never be allowed to fall below 60° F. With the object of diminishing the blood-pressure in the pulmonary vessels, the lower extremities should be kept especially warm by means of hot flannel, or in some other way. The diet should be temporarily restricted to cold concentrated nutritious fluids, the amount of liquid taken should be as much as possible diminished, and hot drinks and alcohol carefully avoided. Some ice to suck relieves cough and so helps to maintain rest. Constipation, inasmuch as it favours the bleeding, should be judiciously obviated. Such treatment as this is of the utmost importance in all cases, and in very many nothing more is required. Should, however, the hæmorrhage be considerable or continue, further interference is called for. Some saline aperient which will act quickly is now often of the utmost service, and, when the patient is not markedly prostrate, the exhibition of a purge at the onset is, I think, in most cases indicated. The old-fashioned, but now much neglected, practice of dry cupping the affected side is probably of use. Of internal remedies, medium doses of the mineral acids appear often to be of service, and, as it is always wise to give something, these may be safely administered. Of the more powerful astringents, which are rarely necessary in the hæmoptysis of early phthisis, gallic acid in twenty-grain doses, alum in twenty-grain doses with twenty minims of dilute sulphuric acid, are the most to be relied on. They should be given at short intervals—say every hour, for a few doses, and then either discontinued or administered much less frequently. Ergot is probably more useful in the arterial hæmorrhage of old phthisis than in the form we are now considering.

The third and last question we have to consider is the teaching of Koch's discovery with reference to the treatment of phthisis. We cannot now stop to discuss Koch's investigations or the conclusions which they necessitate. To accept unconditionally his teaching as it applies to phthisis, in the absence of more complete evidence, is obviously quite unjustifiable. But are we justified in completely rejecting it? Supported as it is by the authority of its author, confirmed by other competent experimenters, for the most part in accordance with, and not involving any mutilation of, existing pathology, and although in some points apparently, yet not conclusively, at variance with clinical medicine, are we not bound, even now, to be more or less guided by it in the prosecution of our practice? If this pathology be even only partially true, it clearly indicates, I think, the necessity of distinguishing between the tubercle bacillus and the conditions which favour its influence, and of directing our treatment to both. We must endeavour to prevent the access of the organism, and, if possible, to destroy it after it has effected an entrance; and we must also strive to maintain a healthy condition of the pulmonary tissues, and thus, if possible, prevent the supervention of any abnormal condition which may be favourable to the activity of the bacillus. The latter of these indications is, I believe, as important as the former; and it is, perhaps, rather in danger of being lost sight of in the very natural eagerness with which attention is now being directed towards the bacillus. As we are now considering the treatment of phthisis after the disease is established, the questions involved in attempts to prevent the access of the bacillus, all-important though they be, do not here concern us. Treatment which has for its object the maintenance of a healthy condition of the pulmonary tissues we have already alluded to; it only remains, therefore, to discuss the possibilities of influencing the bacilli after they have effected an entrance.

Attempts to destroy the bacillus when the disease is established are made principally by means of antiseptic inhalations. This is the fashionable, though somewhat misdirected, therapeutics of the day. A respirator charged with some antiseptic, such as carbolic acid, creasote, thymol, or iodine, is now being very largely used in the treatment of phthisis. Although I should be very sorry to unfairly criticise such treatment, I cannot but think that the clinical evidence that its usefulness is in any way dependent upon the destruction of the bacilli is entirely wanting. It seems to me much more probable that such inhalations, when beneficial, are so mainly through the favourable influence which they exercise upon the mucous membrane and secretion, especially of the higher air passages; and when combined with chloroform, as they so often are, they will also act as direct sedatives. They undoubtedly often relieve cough, and diminish secretion, and such improvement naturally tends to mislead. What we want are cases of early and progressive phthisis in which antiseptic treatment alone, without adjuncts, is followed by marked improvement. When it can be shown, for example, that the pyrexia of early phthisis is reduced by such treatment, we shall have evidence pointing to the influence of the germicides upon the bacilli of considerable value. Since expressing this opinion, which I did at the commencement of last year, investigations have been made by Dr. Hassall, the results of which are to throw very considerable doubt as to whether by the methods of inhalation at present in use the antiseptics employed ever reach the pulmonary tissues.[1] Whilst, therefore, I do not wish to be understood to discourage the treatment of phthisis by antiseptic inhalations, but on the contrary, for it is the treatment to which pathology is pointing, I think we must be careful as to the interpretation we put upon our results. The treatment of phthisis and of other pulmonary diseases by means of a medicated atmosphere has been much stimulated by Koch's discovery. Such treatment has undoubtedly been too much neglected in the past, and its prosecution promises the best results. It is, however, at present in its infancy, and our methods are obviously very imperfect. With the discovery of more perfect methods, it is possible that we may in the future be able to destroy organisms in

[1] See Antiseptic Inhalation in Diseases of Lungs. By Dr. Hassall, Brit. Med. Jour., Nov. 3rd, 1883.

the lung such as Koch has introduced to us. The possibility of indirectly influencing organisms by means of drugs exhibited by the stomach must not be lost sight of in our attempts to prosecute this all-important clinical inquiry.

ON THE NATURE OF SNAKE-POISON;

ITS EFFECTS ON LIVING CREATURES, AND THE PRESENT ASPECT OF THE TREATMENT OF THE POISONED.[1]

BY SIR JOSEPH FAYRER, K.C.S.I., F.R.S.

THE communication which I have the honour of making to you this evening is in fulfilment of a promise made last April, after the discussion of a paper on a similar subject by Dr. Baddaloni of Nocera, which excited considerable interest and some criticism in regard to the purely scientific aspect of snake-poisoning, its treatment, and its relation to the vital statistics of countries in which venomous snakes are more numerous than in our own (in this respect) more highly favoured one. I propose to describe the nature and the mode of action of snake-poison on living creatures, and being most familiar with the ophidia of India, I shall select some illustrations from that source, especially as it affords typical examples of snakes which are endowed with this terrible power of destroying life. Let me ask attention to some points in the structure of the apparatus which is concerned with the elaboration and inoculation of the poison which it is the purpose of this paper to describe. The order Ophidia has three subdivisions: 1, Ophidia colubriformes (innocent); 2, Ophidia colubriformes venenosi; 3, Ophidia viperiformes. The latter two are all poisonous; they are the thanatophidia, and well merit this name in India, where they destroy probably 20,000 human beings annually.

It is well to notice certain differences between an innocuous and a poisonous snake, and a poisonous colubrine and a viperine snake. Snakes are provided with sharp recurved teeth, which are firmly fixed in the maxillary, palatine, and pterygoid bones; and by the form and arrangement of these teeth poisonous may be distinguished from innocent snakes. The harmless snake has two complete rows of ungrooved small teeth—one outer or maxillary, and one inner or palatine; in the majority there are from twenty to twenty-five teeth in the outer row. In the venomous snakes, the outer row is represented by one or more large tubular fangs, firmly anchylosed to the maxillary bone, which is movable, and by its movement causes the erection or reclination of the fang so marked in viperidæ. In the innocent snake the maxillary bone is elongated, and gives insertion to a row of teeth. In the poisonous colubrine it is much shorter, giving insertion to only one or more teeth, the anterior and largest of which is the poison fang. In the viperine snakes the maxillary bone is reduced to a mere wedge, giving insertion to a long curved and tubular fang, which is a much more formidable weapon than the fang of the cobra or other colubrine snake. These fangs, when reclined, are covered by a sheath of mucous membrane, in which lie also several loose reserve fangs in different stages of growth; when the working fang is lost by accident, or is shed, one of the reserve fangs takes its place, becoming fixed to the maxillary bone and placed in communication with the duct of the poison gland.

The teeth vary considerably in the different subdivisions of the order. They are described as being perforated, but though this is apparently the case, it is not really so. They are dense and compact, enclosing the usual pulp cavity, but being folded on themselves, form either an open groove, as in the hydrophidæ, a complete canal as in cobra, or a more complete tube still, as in viperidæ. During development the laminated tooth folds like a leaf on itself, and so forms the channel along which the virus is conveyed, and thus, as you will observe, the tooth makes a most complete hypodermic syringe. The poison is secreted by a conglobate racemose gland situated in the temporal region behind the eye; it is of about the size of an almond in the cobra, and is furnished with a duct which opens into the capsule of mucous membrane enveloping the base of the fang; the venom thence flows into the dental canal and is injected into the wound, when the tooth penetrates the bitten object. At the orifice of the duct it seems probable that there may be a sphincteral arrangement of muscular fibres which enables the snake to control the ejaculation of the virus. I have not been able to make out such a sphincter in the elapidæ, but Dr. Weir Mitchell says it exists in crotalus. I may have overlooked it, and think it probable that further examination may detect it in other poisonous snakes. Here I may refer to the remarkable mechanism by which, the ectopterygoid bone being pushed forwards, the maxillary is made to rotate, and to erect the fang in the viperine snakes, and so the action of the temporal, masseter, and other muscles, which, whilst they close the jaw in the act of biting, at the same time compress the glands and force the poison through the duct.

Before I pass on to consider the poison let me say a few words about the poisonous snakes themselves. Here I may remind you that the only poisonous snake in Great Britain, and indeed, in a great part of Europe is the adder, pelias berus, a viper (or some variety of it), and that in comparison with the cobras and vipers of India and the tropics, it is feeble in its venomous power.

The venomous colubrine snakes of India are the naja tripudians or cobra, ophiophagus elaps or hamadryad, bungarus ceruleus or krait, bungarus fasciatus or raj-samp or sankni, xenurelaps bungaroides, and various species of callophis. They are more deadly than their American or Australian congeners, such as hoptocephalus curtus, elaps corallinus, and others. Hydrophidæ, a very numerous family of sea-snakes, are all very poisonous, but being confined entirely to a marine or estuarial life are not so dangerous to human life as others. The viperine snakes are represented by daboia russelli, or tic polouga or chain viper, echis carinata, or kupper or phoorsa snake; these are true vipers, whilst the crotalidæ or rit vipers are only feebly represented by the trimeresuri, peltopelor, halys, and hypnale. These are much less poisonous than their American congeners, crotalus, lachesis, craspedocephalus, and others. The najadæ are the most virulent of the colubrine snakes, and none are more deadly than the cobra or hamadryad. Of viperidæ, the daboia and echis are probably as deadly as any of the African forms. A beautiful example is before you of vipera rhinoceros (river jack). In 1868, I resumed an investigation, begun in 1854, of the subject of poisonous snakes, and the nature and effects of their poisons. During that inquiry, which continued till 1871, I ascertained from official sources that out of a population of 120,972,263 (Dr. Hunter), 11,416 persons died of snake-bite in the year 1869. Subsequent returns show that the mortality continues at very much the same rate. The Sanitary Commissioners in their report on the N.W. Provinces and Oude for 1882 tells us that 6515 persons were killed in that year by snakes and wild beasts, out of a population of 44,107,869. In 1881, in India, there were 22,377 deaths from the same cause. In destructiveness the Indian snakes stand in about the following order: cobra, krait, echis, daboia. The ophiophagus elaps, bungarus fasciatus, and hydrophidæ are deadly, but less numerous, and therefore less destructive to life.[2] The returns cited represent only a portion of India, and there is good reason to believe that the total annual mortality of the whole Peninsula is not much, if at all, under 20,000 persons, or, roughly, about one in every 10,000. The poison is secreted by glands which represent the parotids in other creatures [a small gland was figured by me in 1869 connected with the duct of the poison gland in daboia. Dr. Wall suggests that its secretion may in some way modify the action of the poison, perhaps giving it the peculiarity in which it differs from the cobra venom], and is probably a modification of the saliva, though different in its action from that innocent secretion. The analogy is more probable if, as suggested by Mr. Busk and other physiologists, there be an active principle in it closely allied to the ptyaline of saliva. The virus is a transparent, slightly viscid fluid, faintly acid in reaction, of varying specific gravity, 1058 being the average, according to Wall, of a mixture of virus taken from several cobras. It is of a bitter taste in the cobra, but not bitter in daboia. It is of a faintly straw-coloured hue in cobra and others; in the

[1] Read at the Medical Society of London on Jan. 28th, 1884.

[2] Of American elapidæ, elaps corallinus and lemniscatus; or of the American crotalidæ, the crotalus (rattle-snake), lachesis mutus; craspedocephalus (West Indian); and of African elapidæ, naja haje, naja hæmachates; of viperidæ, cerastes, and four or five others—all very daagerous.

ophiophagus of a golden yellow. When dried, it loses from 50 to 75 per cent. of water (Wall), and forms a semi-crystalline substance like gum arabic. It is secreted in considerable quantities; and if a fresh and vigorous cobra be made to shed its venom by biting through a leaf stretched across a spoon or shell, several drops can be thus obtained. Examined under the microscope it is structureless, but a few cell-forms and micrococci may be detected; the mucus of the mouth may be the origin of these organisms, and it is probable that there is nothing characteristic in them, for the most active venom is free from them (Wall). The poison is exhausted when the snake has bitten frequently, and it is then comparatively harmless; but it rapidly becomes dangerous again. "If the virus be kept in the liquid state, it first becomes neutral, then alkaline, and a few feathery cubic crystals form; if preserved in a loosely corked test tube, it will become cloudy, smell offensively, and swarm with bacteria, but still it is poisonous. The alkalinity now lessens, and the reaction becomes again acid; the fluid then coagulates into a firm whitish opaque substance, somewhat like the coagulated white of an egg, but of a lemon colour. If a small quantity of fluid is left uncoagulated it is poisonous, and the washings of the coagulum are also poisonous" (Wall). Heating cobra poison to boiling point, Wall says, does not destroy its physiological action, though less local inflammation is caused by it so treated. Snake-poison has been examined by chemists, but a complete or exhaustive analysis has not yet been given. Fontana, in 1781, and Prince L. Bonaparte, in 1843, made an analysis of the virus of the adder (Pelias berus), and came to the conclusion that it contained an active principle, to which he gave the name of echidnine or viperine, which he succeeded in separating. The paper in which he describes the process was read before the Unione degli Scienziate Italiani, at Lucca, in 1843, and is in our library. So far as I know, but little has been added since Prince L. Bonaparte's investigations; further analysis will probably confirm or modify his views, perhaps adding to our information. The Prince laboured under the disadvantage of having only adder poison to analyse. With a better supply of cobra, daboia, or crotalus virus, which might now be obtained, there are good grounds for hoping that the chemistry of snake-poison will be exhaustively worked out. This is now being done in America by Drs. Weir Mitchell and J. E. Reichart, who have published some results of their work.

In 1873, cobra poison from Bengal was submitted to Dr. Armstrong, F.R.S., for analysis, and he obtained the following results:—

Crude poison.	Alcohol precip.	Alcohol extract.	Albumen for comparison.		
Carbon, 43·56 . . .	45·76	43·04	53·5	53·5	Ralfe.
Nitrogen, 43·30 . . .	14·30	12·45	15·7	15·5	
Hydrogen	6·60	7·0	7·1	7·0	
Sulphur ash	2·5	—	—	1·6	
Oxygen (traces) . . .	—	—	—	22·0	
Phosphorus	—	—	—	0·4	

This is an incomplete analysis, but it is to be hoped that the same eminent chemist may be disposed to continue the investigation when supplied with more virus.

Weir Mitchell and Reichart's investigations relate chiefly to crotaline poison, but include a partial analysis of some dried (colubrine) poison from India; they find that the venom of the crotaline snakes can be subjected to the action of the temperature of boiling water without completely losing its poisonous powers. The activity of the venom, however, of crotalus adamanteus seems to be destroyed by a temperature below 176° F. Mitchell, some years ago, showed that the venom of crotalus durissus is not destroyed by boiling, and the curious fact is noted that the venom of crotalus adamanteus in this respect differs from the venom of other snakes. The symptoms caused by the venom of the different snakes with which they have experimented, do not, they say, differ radically, save in degree; but there are symptoms which suggest that further investigation may enable them to point out certain differences by which it will be possible to discriminate one form of poisoning from the other. This is partly in accordance with what has already been observed in India, and notably by Dr. Wall.

Drs. Weir Mitchell and Reichart are unable to confirm the statement of Gautier of Paris that an alkaloid resembling a ptomaine exists in cobra poison. Professor Wolcott Gibbs, they say, was unable to find an alkaloid in the poison of crotalus; but they have satisfied themselves that the venom contains three distinct proteid bodies, two of which are soluble in distilled water, and one not soluble. It appears that, of the three proteids before mentioned, one is analogous to peptone, and is a putrefacient poison; another is allied to globulin, and is a most fatal poison, probably attacking the respiratory centres and destroying the power of blood to clot; while the third resembles albumen, and is probably innocuous. The separation of the poisons necessitates a long and elaborate series of researches, the results of which will be subsequently reported. They have also ascertained that the poison of the rattlesnake (crotalus adamanteus), copperhead (trigonocephalus contortrix), and mocassin (toxicophis piscivorus), are destroyed by bromine, iodine, hydrobromic acid (33 per cent.), sodium hydrate, and potassium permanganate.

The activity of the venom differs not only in character and intensity in different genera and species, but also in the same individual under varying conditions of temperature, climate, health, and state of vigour or exhaustion at the time. It is a most virulent poison, and it takes effect when absorbed into the circulation either by inoculation, or, as I demonstrated in India (quite against all former and universal belief), when applied to a mucous or serous membrane, proving that it may neither be sucked from a bite nor swallowed with impunity. It acts most rapidly on warm-blooded creatures, sometimes with great rapidity when it enters a vein; it is deadly also to cold-blooded creatures, and to the lowest form of invertebrate life. Strange to say, and this to me is one of the greatest of its mysteries, a snake cannot poison itself, or one of its own species, scarcely its own congeners, and only slightly any other genus of venomous snake, but it kills innocent snakes quickly. It has been ascertained that a vigorous cobra can kill several dogs, or from a dozen to twenty fowls, before its bite becomes impotent, and then the immunity is of brief duration, for the virus is rapidly re-formed.

(*To be continued.*)

ON THE

PHYSIOLOGY OF THE CARBOHYDRATES IN THE ANIMAL SYSTEM.

BY F. W. PAVY, M.D., F.R.S.

(Continued from p. 152.)

Condition in the Ruminant.

I HAVE already adverted to the peculiarity in the position of the ferment in the digestive tract of the ruminant which acts upon grape sugar, and shown that whilst in other animals it is situated in the stomach and intestine, in the ruminant it is found in the paunch, reticulum, and many-plies, and not in the true stomach and intestine. With reference to cane sugar also, the conditions are different. The stomach in animals generally contains much less ferment than the intestine. In the ruminant the amount of ferment in the true stomach is still less. The great difference, however, is in the intestine. Whilst the intestine of the horse, pig, &c., possesses an energetic transformative influence over cane sugar, it is striking to notice in a parallel experiment with the sheep the very little change that is induced. It is in the parts of the stomach before the true stomach is reached that the capacity exists for exerting the change which cane sugar undergoes in the alimentary tract.

Experiment.—Portions of the cleansed paunch, reticulum, many-plies and reed or true stomach of a sheep were minutely divided, and 10 grms. of each taken. After the addition of a little water they were respectively mixed with 5 cub. centims. of a solution of cane sugar containing an amount of cane sugar equivalent to ·104 grm. of glucose. They were now exposed for two hours to a temperature of 120° F., and then prepared in the usual way for titration with the ammoniated cupric test. Portions of sheep's intes-

tine were also dealt with according to the details furnished below. The subjoined figures show the results obtained :—

	Cupric-oxide reducing power expressed as glucose.
Paunch with 5 cub. centims. of the solution of cane sugar (= ·104 grm glucose) exposed for two hours to 190° F. ...	·086 grm.
Reticulum with 5 cub. centims. of the solution of cane sugar (= ·104 grm. glucose) exposed for two hours to 120° F.	·020 ,,
Many-plies with 5 cub. centims. of the solution of cane sugar (= ·104 grm. glucose) exposed for two hours to 120° F.	·068 ,,
Reed (true stomach) with 5 cub. centims. of the solution of cane sugar (= ·104 grm. glucose) exposed for two hours to 120° F.	·016 ,,
Intestine with 10 cub. centims. of the solution of cane sugar (= ·208 grm. glucose) exposed for two hours to 120° F.	trace.
Intestine with 20 cub. centims. of a solution of cane sugar (= ·302 grm. glucose) stood eighteen hours at the ordinary temperature	·006 grm.
Intestine with 10 cub. centims of a solution of cane sugar (= ·416 grm. glucose) exposed forty-five minutes to 120° F., and afterwards allowed to stand eighteen hours at the ordinary temperature	·014 ,,

Situation of the Ferment in the Walls of the Canal.

It has been shown in the case of grape sugar that its converting principle is situated in the deeper parts, and not in the superficial mucous layer of the walls of the alimentary tract. Such is not the case with regard to cane sugar. The superficial surface of the mucous membrane scraped off is quite as efficacious in effecting the transformation of cane sugar as the entire walls. In parallel experiments with cane sugar and grape sugar I have seen that whilst the scrapings of the mucous membrane of the intestine have failed to move grape sugar, cane sugar has been energetically transformed. I have tried the scrapings of the mucous membrane, the parts that were left, and the entire coats against each other, and have not met with results that enable me to formulate any positive difference producible by them.

Action of the Contents of the Stomach upon Cane Sugar.

I have a record of five experiments before me in which cane sugar was kept in contact for twenty and thirty minutes at a temperature of 120° F. with the contents of the stomach of the rabbit taken at a period of digestion. On account of the presence of carbohydrates in the contents themselves, an examination of these, placed under parallel circumstances alone, was required to be made, and the figures deducted from those yielded when cane sugar was employed. An alcoholic extract was made for testing. The results obtained afforded evidence of the occurrence of extensive transformation.

Nature of the Product into which Cane Sugar is transformed.

The acquirement of a cupric oxide-reducing power by a cane sugar product shows that a transformation has taken place, but the question now to be considered is something beyond this—viz., the nature of the body that is produced. For the determination of this point much careful attention has had to be bestowed. I at first thought that the matter stood in a position to be easily disposed of. I had taken the cupric-oxide reducing power of the product in a large number of instances before and after treatment with sulphuric acid, and had not observed that the cupric-oxide reducing capacity of the product before treatment with sulphuric acid had advanced beyond that of maltose in relation to the reducing power after treatment with sulphuric acid, and was generally less. I therefore thought I was entitled to draw the conclusion that the transformation was into maltose, or into one of the dextrins of less cupric-oxide reducing power than maltose; or, instead of one of these dextrins, that the product consisted of maltose and untransformed cane sugar. Whilst in this position an instance occurred in which the figures showed that the transformation had advanced to glucose, and subsequently I found that under the influence of a large amount of ferment, or under prolonged action with a less amount, either glucose, or something near it in reducing power, may be produced. It was in operating with pig's intestine that I first noticed what I have mentioned. The product was exposed to heat one day and allowed to stand till the following, when glucose was found to have been produced. The subjoined may be given as an example illustrative of the production of glucose :—

Experiment.—Scrapings from a considerable length of the cleansed intestine of a rabbit were mixed with water and passed through muslin so that measured quantities could be taken. Five cub. centims. of a solution of cane sugar, equivalent to ·096 of glucose, were then mixed respectively with 20 and 40 cub. centims. of the intestinal product, and exposed for two hours to a temperature of 120° F. Analysis yielded the following results :—

		Cupric-oxide reducing power expressed as glucose.
Twenty cub. centims. of the intestinal product with 5 cub. centims. of the solution of cane sugar (= ·096 grm. glucose) exposed for two hours to 120° F.	Before sulph. acid	·078 grm.
	After ,, ,,	·092 ,,
Forty cub. centims. of the intestinal product with 5 cub. centims. of the solution of cane sugar (= ·096 grm. glucose) exposed for two hours to 120° F.	Before sulph. acid	·096 ,,
	After ,, ,,	·096 ,,

With the employment of the 20 cub. centims. of intestinal product the transformation, it will be noticed, was not carried as far as glucose. The relation in reducing power before and after sulphuric acid in reality stood as 84 to 100. With the 40 cub. centims., on the other hand, the reducing power before was the same as that after. Glucose therefore existed.

Looking at the fact that cane sugar had been observed to pass into glucose, the important question now presented itself whether with a product presenting the reducing characters of maltose, or a dextrin, such a product really existed, or whether the difference in the reducing power before and after treatment with sulphuric acid was not due to the existence of glucose with untransformed cane sugar. For instance, suppose after the action of the ferment upon cane sugar the product gave a reducing power of 61 before treatment with sulphuric acid and 100 afterwards, this might be due either to the presence of maltose or to 61 of glucose and untransformed cane sugar equivalent in amount to 39 of glucose. Both suppositions are equally applicable by way of argument, and it is only by appeal to observation of a character to afford assistance that the point as to which view is correct can be settled. It is a property of cane sugar to be as readily convertible into glucose by boiling with citric acid as by boiling with sulphuric acid, whilst such I have found is not the case with maltose, whether derived from starch or constituting a product of transformation of cane sugar. A difference here then exists, and I will proceed to show that this difference of behaviour may be turned to account for affording the information required.

In order that the assertion I have just made may be shown to be well founded I will, as a preliminary step, give the results derived from the examination of actual mixtures of cane sugar and grape sugar, cane sugar and maltose, and grape sugar and maltose.

Mixture of Cane and Grape Sugars.

Ten cub. centims. of a solution of cane sugar containing cane sugar equivalent to ·213 grm. of glucose were mixed with 10 cub. centims. of a solution of grape sugar containing ·207 grm. of glucose. Water was added to bring the volume to 150 cub. centims., which was divided into three equal parts. One part was titrated at once, the second boiled with citric acid (in proportion to give a 2 per cent. solution), neutralised, and then titrated, and the third was treated in a similar manner with sulphuric acid. From the cupric-oxide reducing power of each the figures for the whole volume of 150 cub. centims. were deduced by calculation.

Against the figures actually obtained I will place those which theoretically would be yielded.

	Figures theoretically yielded.	Figures actually obtained.
Before treatment with acid	·207 grm.	·207 grm.
After boiling five minutes with citric acid	·420 „	·414 „
After boiling an hour and a quarter with sulphuric acid	·420 „	·414 „

Maltose and Cane Sugar.

Ten cub. centims. of the solution of cane sugar containing cane sugar equivalent to ·213 grm. glucose were mixed with 50 cub. centims. of a solution of maltose, prepared by the action of saliva on starch, and having a reducing power equivalent to ·165 grm. glucose before boiling with sulphuric acid and ·426 after. Water was added to bring the volume of the mixture up to 150 cub. centims., and this was then divided into three equal parts, and dealt with in the manner represented below with the results that are given.

	Figures theoretically yielded.	Figures actually obtained.
Before treatment with acid	·165 grm.	·165 grm.
After boiling five minutes with citric acid	·378 „	·381 „
After boiling an hour and a quarter with sulphuric acid	·639 „	·651 „

(*To be continued.*)

A STUDY ON THE

DEAD SUBJECT RELATIVE TO CATHETERISM OF THE URETERS, AND EXPLORATION OF THE MALE BLADDER.

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EARLY in 1883 I was consulted by a gentleman from South America about an injury he had received in the right loin from a bullock at a cattle ranch. The injury was not attended with an external wound, but was a severe contusion of the part; it was followed by hæmaturia and more remotely by right hydro-nephrosis, for which aspiration had been repeatedly and successfully employed. The point submitted to me was—if the ureter is merely strictured, and not completely ruptured, can anything be done to save the kidney from atrophy? As it seemed probable that the ureter had been divided and the corresponding kidney was rapidly becoming atrophied, I advised that nothing should be done, and I have since heard that the patient has completely recovered his health, though there can be no doubt he has lost a kidney.

During the past summer I had under observation at this infirmary a middle-aged man suffering from a villous tumour of the bladder; the situation of the growth was probably at the orifice of one of the ureters, and possibly within reach of surgical interference. Though, as it sometimes happens in these cases, no necessity for an operation has yet arisen, by reason of the disappearance of the hæmaturia under treatment, I then had under consideration various plans for effecting a more accurate removal of such growths than had hitherto been attempted. Having also in view the possibility of some day meeting with a case where catheterism of the ureter was absolutely demanded at almost any risk, with the assistance of my friend, Dr. Barron, the demonstrator of anatomy at the Liverpool School of Medicine, the following observations on the dead subject were made.

Lateral lithotomy was performed on a middle-aged healthy subject: the incision into the bladder was extended in front by opening into the membranous urethra with a probe-pointed bistoury, and behind by cautiously extending the cut into the prostate to almost the extreme limits of the gland. On subsequently removing the parts, it was found that in this way a considerable opening could be made into the bladder without exceeding what I should regard as a safe limit. Though the opening just described permitted a free access to the bladder for the finger, yet no part of its mucous lining could be inspected even with the employment of suitable retractors. With the assistance of the latter instruments and by forcible pressure downwards, with the hand over the pubes, a small portion of the fundus of the bladder could be brought within sight, but the orifices of the ureters could not be seen, nor could any instrument, such as a probe introduced into the bladder through the wound, be made to enter them. The cavity of the abdomen was then opened by a median incision above the pubes sufficient to permit of the introduction of three fingers over the fundus of the bladder. By thus pressing the bladder down towards the perineal wound the whole of its mucous surface could be brought into view, including the orifice of the ureters and the trigone. In one subject, by reason of some enlargement of the prostate, the view of the latter was imperfect. With the object of improving this, the following expedients were resorted to:—(1) endeavouring to elevate the part by two fingers introduced up the rectum, (2) by the introduction of a lever up the bowel, and (3) by the whole hand passed into the rectum. By the first two methods employed the view of the trigone was not improved, whilst the hand in the bowel, by occupying the whole space, obscured everything. When, however, there was no enlargement of the prostate, it was found possible, with the hand introduced into the abdomen, to bring all parts of the mucous surface of the bladder into sight, including that immediately behind the pubes. It was found quite easy to catheterise the left ureter; the right required a little more looking for. By a bilateral section of the prostate the search for the latter was facilitated, but the conclusion we came to was that with a natural prostate this additional incision was by no means necessary. It seemed not only possible to bring the whole of the mucous membrane of the bladder into view and within reach of manipulation, and to catheterise the ureters, but, further, with the hand in the abdomen to command all hæmorrhage from the parts through which the deeper incision would probably pass. The latter point could only be verified on the living subject; it seemed, however, to us a reasonable inference to draw. Abdominal and vesical surgery has recently made such important and almost unexpected advances that it does not appear unreasonable to consider, in their application to cases otherwise unprovided for, those operations on the dead subject which have just been described and were repeatedly verified.

Liverpool.

ON PAROXYSMAL HÆMOGLOBINURIA.

By STEPHEN MACKENZIE, M.D., F.R.C.P.,
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(*Continued from page 158.*)

CASE 3.—For an opportunity of seeing this patient I am indebted to Dr. Anderson of Richmond. It is valuable, as the disease has persisted about twenty-three years, and as an intelligent person's own description of his case. The patient is a gentleman of independent means in his fifty-first year. The following is his own account:—"On or about the 8th of August, 1860, I had my first attack while on a journey to the Highlands, in consequence of getting thoroughly chilled through sitting for six hours on the outside of a coach, and only clad in light summer things and a very thin mackintosh. The day was cold, and it rained incessantly the whole journey. I was so very ill during the last stage that I had to be supported by a fellow passenger. On arriving at my destination I was only able to shake my head in response to my host's offer of hot brandy-and-water, tea, a hot bath, &c. I tumbled into bed somehow or other, and shivered so that the clothes shook and my teeth chattered. However, I at length fell asleep, but recollect awakening once during the night and fancying I was dying, as my heart seemed as if it had stopped. I again went to sleep, and awoke in the morning 'all right.' I noticed then that my urine was perfectly black, but thought nothing more about the matter. I was in good health when I started on my journey, and attributed my illness to the cold and wet, and to having had nothing since breakfast but some weak brandy-and-water. I was twenty-seven years and a half old then.

Every subsequent attack has invariably occurred through exposure to cold, and in no other way, the intensity of the attack only varying according to the time of exposure. Symptoms: The first symptom is only what I can describe as an uncomfortable feeling about the region of the wind—just below the breast. Then, as the chill goes on, yawning and stretching out one's arms, and then a drowsy fit. If the attack is a bad one, there is besides an intense shivering, and the jaws rattle so that the mouth cannot be shut. These symptoms are accompanied by intense thirst, and at the same time a loathing of anything in the shape of beer, wine, or spirits. I generally take milk when procurable, if not, a lemon squash. If the attack comes on before dinner, the appetite disappears, however hungry I may have been. After going to bed and getting a good sweat, and passing black urine, I am all right again, though I feel slightly shaky for an hour or so afterwards. As a general rule my health is good between the attacks, and nothing in the shape of food or drink seems to hurt me. The blackness of the urine depends on the severity of the attack, and so do the above symptoms. The attack can never be, or rather has never been, brought on by the exposure of the previous day. The attacks come on in the summer just the same if I am exposed to cold, but of course the winter is the worst time. The chills never occur without exposure to cold. None of my family have ever had these chills, or even symptoms of them; the same with regard to my two girls, aged sixteen and eighteen. I have never been exposed to the risk of getting ague; have never been abroad, except a short visit to Belgium. It is difficult to name the various couses of the chills, as their name is legion. In general, as before remarked, any exposure to cold brings on an attack. One was brought on by trying to stop a leaky pipe in winter (the hands and arms were immersed in the cistern), and which so benumbed the hands that, as a matter of course, a chill came on." This patient contracted primary syphilis as a young man, but had no subsequent manifestations.

These cases serve to illustrate most of the important features of this curious condition. All three were males. In each the disease began abruptly on exposure to conditions which had not previously excited an attack. In one the disease ceased under treatment, and he has remained free from symptoms for fifteen months; it is impossible to say whether the condition will return. In the second case the patient has had two transitory attacks with an interval of eighteen years between them, though through all those years he was exposed to the same conditions as evoked the two attacks from which he has suffered. In the third case, the disease once excited has persisted for twenty-three years, in spite of much treatment. The disease we are considering presents, as several writers have remarked, considerable practical difficulties in its study. The patients are often not sufficiently ill to voluntarily become inmates of hospital wards; whilst if they do so, they, as a rule, owing to the uniform temperature, remain free from attacks. Hence it is that few opportunities are afforded of studying all the features of an attack *ab initio*. The same difficulties are experienced in private practice. In spite of these obstacles, our knowledge, though manifestly incomplete, is gradually increasing, and I propose to review what is the present state of our information concerning the disease.

First, as the most obvious and important matter, with regard to the condition of the urine. A patient, whose urine has previously manifested no observed peculiarity, on exposure to cold, or, in rare cases, to some other exciting cause, notices that it has the colour of blood or of porter. In a few hours usually it regains its natural appearance, to become blood-coloured again on exposure to the same exciting cause. It is convenient therefore to consider the urine passed in the paroxysm and that passed between the paroxysms separately.

The paroxysmal urine.—When freshly passed it sometimes has a colour as deep as porter, or it may be of a deep port-wine colour, or of any tint from these to a little deeper than the natural straw colour of health. The tint is dependent, as a rule, on the degree of cold to which the patient is exposed, and on its duration. In ordinary well-marked attacks it is port-wine or porter coloured. The urine when freshly passed is usually slightly turbid from suspended urates and hæmoglobin granules. On standing usually a copious sediment falls to the bottom of the vessel, and the supernatant fluid becomes clear and blood-coloured to a varying degree.

That the colour is due to blood is shown by the guaiacum and Heller's tests, and by spectroscopic examination. In most cases the spectroscope gives two well-marked absorption bands between the orange and green of the spectrum, or between D and E of Frauenhofer's lines. In not a few cases, in addition to those bands which are characteristic of oxy-hæmoglobin, an additional band is seen in the red portion of the spectrum near its middle, and is due to the presence of methæmoglobin. There are certain discrepancies in the statements of different writers as to the significance of the various absorption bands. The matter is ably discussed by Drs. Forrest and Finlayson,[1] and by Dr. Ralfe, in his recent Clinical Chemistry.[2] There is no doubt that, in many cases, or Dr. M'Munn would go so far as to say most cases,[3] methæmoglobin is present, but it certainly is not in others. I had numerous opportunities of examining the bloody urine of Case 1, and several opportunities of examining that of Case 2, passed in my presence, and therefore quite fresh, but in each of these only the two bands between D and E were present. On one occasion Dr. Meymott Tidy found hæmatin in the urine of Case 1, which had been kept for more than a day, and he suggested as an explanation that it had been placed in a dirty bottle. Albumen is always present when blood-colouring matter is in the urine, and usually in proportionate amount. It behaves to reagents much as albumen does in ordinary circumstances, only it is, when precipitated, coloured of a dirty brown or chocolate colour by the dissolved hæmoglobin. Some have described special peculiarities of the albumen: that it floats on the surface (Lichtheim[4]), and that it is readily dissolved by slight excess of acid (G. Harley[5]); but neither of these peculiarities is constantly observed, and Dr. Saundby[6] has shown that serum albumen is present in addition to paraglobulin. An important point on which further information is needed is whether, in the paroxysm, the albumen always precedes, is exactly contemporaneous with, or follows the appearance of the colouring matter. Rosenbach[7] has shown that in the beginning of a paroxysm albumen may precede the appearance of blood-colouring matter. It must be remembered that urine may have a colour scarcely exceeding the natural, and yet give (as in Case 2), after a few minutes' interval, the blue colour with guaiacum, and on standing deposit a few hæmoglobin casts. As a rule, however, the albumen and blood-colouring matter appear to go hand in hand.

There is nearly always an abundant coffee-ground-like deposit. The most remarkable feature of this is that, in spite of the proved blood origin of the colour of the urine, no blood-corpuscles are, as a rule, present. They are not entirely absent in all cases, but in none in which they are found do they bear any relation to the amount of colour. Drs. George Harley, George Johnson,[8] Rosenbach[9] (in experimentally induced attacks), and others, have found a few red corpuscles. Dr. Wickham Legg, in his valuable article on this disease,[10] writes that a gentleman had an attack while waiting to see him, and the urine passed in his presence was immediately examined. "There was no difficulty in recognising many red blood-corpuscles. The urine was set aside till the next day, when it was again examined. This time I could not discover a single corpuscle." I had repeated opportunities in Case 1, and several opportunities in Case 2, of examining the freshly-passed urine when bloody, but on no occasion did either contain blood-corpuscles; nor did that of a case previously published by me.[11] All are agreed that the presence of red blood-corpuscles is occasional, but exceptional, and this gives the disease one of its peculiarities. The copious deposit consists in most cases of amorphous urates, and amorphous or granular pigment-matter, hæmoglobin granules. In some cases casts, hyaline, granular, and pigmentary, are present. They were depicted by Dr. Harley in 1865.[12] In some cases casts containing blood pigment are always found, as in Case 2, and in others, as Case 1, I have never found a single cast. Dr. Beale has stated[13] that the

1 Glasgow Medical Journal, June, 1879.
2 Clinical Chemistry, by C. H. Ralfe. Cassell and Co. 1883.
3 The Spectroscope in Medicine.
4 Volkmann's Sammlung Klin. Vorträge, No. 134.
5 Med.-Chir. Trans., vol. xlviii., p. 170.
6 Birmingham Med. Rev., vol. xi. (reprint).
7 Berlin. Klin. Woch., 1880, No. 10, p. 132.
8 Med.-Chir. Trans., vol. xlviii., p. 181. 9 Op. cit.
10 On Paroxysmal Hæmaturia, St. Barth. Hosp. Rep., 1874, p. 77.
11 THE LANCET, July 26th and Aug. 2nd, 1879. 12 Op. cit.
13 Practitioner, 1868, vol. i., p. 73.

granular appearance of the casts is due to urates, and may be made to vanish by heat. I have never tried this, but it will be seen that the appearance of the casts in Case 2, which I hand round, corresponds very closely with that in the tubules of Dr. Dreschfeld's sections of the kidney from his case of hæmoglobinuria from chlorate of potash, and which by his kindness I have the opportunity of showing. These correspond very closely with the "peculiar brownish cylinders" described by Ponfick in the urine after transfusion.[14] In many cases crystals of oxalate of lime have been found in the urine (Harley, Greenhow,[15] Adam,[16] my own previous case on one occasion, and in several other cases). They were never present in Cases 1 and 2, nor in many other recorded cases. Van Rossem[17] has founded a theory on their assumed constant occurrence. He believes that blood, as such, was poured out by the kidneys, and dissolved in the bladder by the oxalates. The fact that, in many cases, they are never present refutes this hypothesis. Uric acid has also been found in several cases, but more often it is absent. Blood crystals have been found in two cases; once by Sir William Gull;[18] and in a case under Dr. Grainger Stewart, one hæmatin crystal was found on a single occasion by Dr. Strang.[19] Epithelium from the kidney and bladder is found in greater or less abundance in many cases. Sometimes the nuclei of the cells have imbibed the blood pigment and are of a ruby-red colour. A few leucocytes are also often met with. The reaction of the urine is usually acid, and in my experience, as well as in that of Boas, often remains so for many days. It may, however, be neutral or alkaline when freshly passed, as in a case recorded by Rosenbach. The specific gravity is usually high,[20] but it may be low, as Lichtheim, Rosenbach, and Boas have shown.[21] Probably the specific gravity, reaction, and some other points vary in different cases in relation to food and personal peculiarities, some of them, perhaps, independent of the disease. The urea has been found increased in some cases, diminished in others. The urine remains blood-coloured, with its accompanying peculiarities, for a varying time in different cases, probably depending in the main on the degree and duration of the exposure and the individual susceptibility. In some cases that voided after the chill has passed off it is quite natural in appearance, if the bladder has been emptied previously of black urine caused by the chill. In other cases the second, third, or even later evacuations of the bladder are more or less coloured, the colour lessening with each succeeding micturition. It has been known to remain bloody for a fortnight or three weeks.[22]

Inter-paroxysmal urine.—This in the majority of cases appears natural, and that it is so practically is shown by the fact that cases have been watched for periods of many years without marked changes in the inter-paroxysmal urine being detected, or evidence arising as to any organic affection of the kidney. The inter-paroxysmal urine may be of a high or low density, the urea equal to or less than the normal. Albumen may persist after all traces of blood-colouring matter have disappeared,[23] and traces of hæmoglobin may be present in inter-paroxysmal urine free from albumen (Saundby). In Case 2 a violet tint was produced on boiling the urine free from obvious colouring matter with nitric acid, and Dr. Wickham Legg "noticed a deep violet colour arise when some of the urine passed between the paroxysms was treated with strong hydrochloric acid." Indican has been found in several cases (Gee, Virchow, &c.). Though such a circumstance appears to be unusual, it may be expected that organic kidney disease will sometimes supervene upon this affection, for the ordinary causes acting in this direction must be in operation to a greater or less degree. Thus, perhaps, may be explained some cases in which albumen is found apart from the attacks. Dr. Sutton has recorded the occurrence of uric acid renal calculi occurring in a patient who had previously suffered from characteristic attacks of paroxysmal hæmoglobinuria following exposure to cold.[24]

(To be concluded.)

[14] Virchow's Archiv, 62. [15] Trans. Clinical Soc., 1868, p. 40.
[16] Glasgow Med. Journ., June, 1879. [17] Dissert., Amsterdam, 1877.
[18] Guy's Hosp. Rep., 1866, p. 381.
[19] Brit. Med. Journ., 1878, vol. ii., p. 103.
[20] C. Harley and Dickinson.
[21] Boas, Paroxysmale Hämoglobinuria, Deutsch. Archiv. für Klin. Med., vol. xxxii., 1883, p. 355.
[22] Dr. Cock's case quoted by Dickinson. [23] Forrest, op. cit.
[24] Hunterian Society Report, 1878-79, p. 53.

ON

PARALYSIS OF THE SERRATUS MAGNUS.

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THE following paper is a contribution to the discussion on the symptoms of serratus paralysis. Before considering the controverted points I will briefly narrate three cases of my own, so that they may be included amongst the illustrative cases:—

CASE 1.—E. Y——, aged twenty-six, consulted me in December, 1882, for "weakness and growing out of the shoulder." The patient was a sickly-looking, anæmic girl, but had always enjoyed fair health. She had never used the arms beyond the requirements of ordinary housework, had not suffered from any recent febrile attack, nor any other general derangement bearing on the symptoms. Her attention was first drawn to the condition of the shoulder about a month before, when her sister observed that in certain positions of the arms the right shoulder projected behind in a peculiar way. The patient had previously felt the right arm to be weaker than the left, and had also experienced difficulty in lifting it above the head, as in the act of dressing the hair. She has no pain in moving the arm, but at intervals has felt sudden intense neuralgic pains shoot up to a particular spot on the occiput, and occasionally down the shoulder and back. Some time before the condition of the shoulder was discovered, several of the right cervical glands suppurated, the surrounding structures being considerably infiltrated and indurated. Examination: The general muscular system was equably developed, but individually the muscles were flabby. On examining the back, the arms being pendent, the right shoulder was seen to be a trifle lower than the left. The inferior angle of the right scapula was half an inch nearer to the middle line, and nearly an inch higher than the corresponding part of the left scapula; it also projected about an inch from the chest-wall. The upper median angle of the right scapula was slightly higher and further away from the middle line than that of the left, imparting an oblique direction from above downwards and inwards to the internal border. There was slight atrophy of the right serratus magnus, but all the other muscles of the trunk and arms of both sides were normal. When the arms were extended horizontally forwards, the internal border of the right scapula started fully two inches away from the trunk. When the serrati were brought into action by jerking the arms rapidly forwards (a movement imperfectly performed on the right side), or by deep inspiration, the digitations of the left side only were visible. The patient could raise the right arm slightly above the horizontal plane, but only with great difficulty. Electrical examination: The right serratus magnus yielded the quantitative and qualitative changes in voltaic reaction characteristic of the reaction of degeneration; the faradaic irritability was quite extinct. The trapezius, levator anguli scapulæ, rhomboidei and deltoid of the right side, together with all the muscles of the left side, responded normally. Treatment was first directed to the removal of the peri-glandular induration; afterwards the voltaic current ten m. v. was passed for ten minutes at a time along the course of the posterior thoracic nerve. The treatment was carried out somewhat irregularly, and although the patient can now without difficulty lift the arm vertically above the head, there is still a slight projection of the internal border of the scapula when the arms are extended horizontally forwards. Faradaic irritability is not fully re-established.

CASE 2.—W. B——, aged thirty-seven, labourer, presented himself on Feb. 19th, 1883, at the out-patient department of the Salford Royal Hospital, under the care of my colleague, Mr. A. Boutflower, for weakness of the right shoulder, supposed to be the result of an injury. After ascertaining that there was no surgical lesion, Mr. Boutflower kindly transferred the case to me. The patient stated that about six weeks ago he was occupied for several hours on two consecutive days in carrying on his right shoulder a number of heavy iron castings. Whilst doing this he felt painful sensations in the right side of the neck and down the back and arm, and after he had finished the right arm felt almost powerless. After resting two or three days, during which time he had violent shooting pains and slight muscular twitchings in the right shoulder and arm, with pain on

pressure, the patient resumed work. The right arm remained weak, and certain movements, such as reaching an object placed at a higher level than the shoulder, were performed with increasing difficulty. Examination: The patient was a healthy man, of average muscular development; he has never had any illness except colds and the like. On looking at the back, the patient being erect, with the arms hanging down by his sides, the posterior borders of the scapulæ were seen to be equidistant and parallel to the vertebral column, the inferior angle of the right scapula being everted; there was no difference between the level of the two shoulders. When the arms were extended in front of the body the posterior border of the right scapula stood away from the thorax fully two and a half inches, well exemplifying the designation "winged scapula." The serrations of the right serratus magnus were invisible when an attempt was made to bring the muscle into action; in repose there was no perceptible difference between the serrati muscles of the right and left sides. There was no flattening of the right rhomboidei, nor any difference, either in action or repose, between them and the corresponding muscles of the left side. The patient could not raise the right arm above the horizontal plane except the blade of the scapula was firmly pressed against the trunk and carried outwards by the hand of a bystander. All movements were unattended with pain; the objective pain had quite disappeared. Electrical reactions: The right serratus magnus displayed fully developed reaction of degeneration, except that the faradaic irritability was not quite extinct. The right trapezius, levator anguli scapulæ, rhomboidei, and deltoid, and the whole of the muscles of the left side yielded normal reactions. Treatment: Voltaic current fourteen m. v. for ten minutes twice a week until faradaic irritability returned, when the induced current was substituted. In June the patient was discharged, the serratus having quite recovered its motility.

CASE 3.—J. T——, aged eighteen, a house painter, came under my care at the out-patient department of the Salford Hospital, May 7th, 1883. He stated that about ten days previously he had been directed by his master to assist in the internal decoration of a number of cottages; the duty allotted to him was that of whitewashing ceilings, a kind of work with which he was practically unacquainted. The patient worked a couple of days, during which time he had to desist frequently for short intervals from sheer fatigue of the arm. The right arm alone was used, as the patient, a few days before, had sprained his left wrist. From want of sufficient elevation he was obliged to keep the arm at full stretch all the time he was at work. On the third day he experienced much greater difficulty in accomplishing his task, and on that day left his work unfinished. The following day he had a good deal of diffuse pain and soreness in the arm and shoulder, but no shooting pains nor muscular twitchings; the pain rapidly subsided, leaving a feeling of weakness in the shoulder. Examination: The patient was under-sized and ill-nourished, but had not suffered from any illness other than the minor ailments of childhood. With the arms pendent the scapulæ were nearly parallel to, and equidistant from, the vertebral column, the inferior angle of the right scapula being slightly nearer the middle line than that of the left, and everted to the extent of about half an inch. The costal attachments of the right serratus were invisible on deep inspiration, but there was no atrophy. With the arms horizontally forwards the internal border of the right scapula stood away about an inch and a half from the thorax. On being told to lift his arms above the head, he only partially succeeded with the right; when elevated the right arm was further away from the head than the left, the latter being applied close to the left ear. Electrical examination: Voltaic and faradaic irritability of the right serratus magnus was considerably lessened, but there were no qualitative changes in the reactions; all the other muscles responded normally. Treatment: Rest was enjoined for a week, after which the faradaic current was used for six or eight minutes twice a week. The recovery was rapid and complete; in six weeks the patient was discharged cured. This case was one of paresis rather than paralysis of the serratus magnus, the muscle, I have reason to suppose, not being completely enervated, it will therefore not be included amongst the cases referred to when commenting on the symptoms of serratus paralysis.

In the first of these cases the mischief seems to have been occasioned through implication of the posterior thoracic nerve just before it pierces the scalenus medius, in the mass of indurated tissues surrounding the inflamed cervical glands. My friend Dr. Ross, who kindly saw the case with me, concurred in this opinion. The neuralgic pain on the back of the head was probably due to irritation from the same cause, of one of the superficial branches of the great occipital nerve. In Case 2 the nerve in its superficial position in the neck was probably severely compressed by the heavy pieces of metal, and more or less neuritis set up, as indicated by the pain along the course of the nerve and coincident muscular twitchings. The etiology of the third case is more difficult of explanation. Eliminating cold as a cause—and careful inquiry failed to elicit any history of such causation—two hypotheses present themselves: fatigue of the muscle, or injury to the posterior thoracic nerve as it perforates the scalenus medius through forcible muscular contraction. It is difficult to understand how muscular fatigue of such a limited duration could cause paralysis in one muscle only of those concerned in the production of the movements which gave rise to the fatigue. Why should the trapezius and deltoid escape? The second hypothesis also presents difficulties. When the vertebræ are the fixed point the scaleni assist in elevating the ribs; in ordinary respiration their action is very slight; when their lower attachments are the fixed point the muscles draw the head sideways. It is possible that in flexing the neck strongly to the left, as would be done in an endeavour to reach a high vertical plane with the right arm, the right scaleni would be rendered very tense, and that continuous movements of the right arm under these conditions might injure the nerve and produce in it some molecular change sufficient temporarily to interfere with its conductivity. Jobert de Lamballe[1] mentions the case of a ropemaker who suffered from a serratus paralysis through working with the arms vertically above the head. Weisner[2] also mentions the same causation. In my case, from the character of the symptoms, the electrical reactions, and the speedy recovery, it appears improbable that neuritis was set up, or that the axis cylinder was injured. Erb[3] has proved experimentally that after contusion of a peripheral nerve the axis cylinder may persist, the resulting degeneration being confined to the medullary substance. Motor nerves are known to afford less resistance than sensory nerves to the effects of pressure. Weir Mitchell[4] states that a pressure equal to eighteen or twenty inches of mercury exerted for fifteen minutes is sufficient to completely interrupt the conduction of motor influences for a time, the conductivity returning soon after the pressure is removed.

(To be concluded.)

NOTE ON WASHING OUT THE URINARY BLADDER.

BY W. J. COLLINS, M.D., B.S., B.SC. LOND.

THERE are few things among minor surgical therapeutics that may be so conducive to the patient's comfort, when properly performed, as washing out the urinary bladder. But to be efficient it requires much care and gentleness in management, and I cannot help thinking that most of the methods at present in vogue are open to the twofold objection of awkwardness of execution and risk of introduction of air. The old method of throwing in several ounces of water from a brass syringe through a silver catheter has received Sir H. Thompson's just condemnation. These have been superseded by gentler appliances in the shape of the flexible catheter and the indiarubber bottle with a brass nozzle and stopcock, and valuable improvements they undoubtedly are. It is, however, somewhat difficult to accurately fill the bottle, and air is often heard to escape with a bubble when the contents are injected; moreover, the nozzle has to be withdrawn from the catheter after each injection to give exit to the effluent from the bladder. This latter objection has been surmounted by employing a double current catheter, the only drawback from which is that the channel is thereby halved, and so the exit of flakes of mucopus or portions of blood-clot is hindered or prevented.

The following plan, which I have adopted, is simple and

[1] Gaz. des Hôpitaux, 1845. [2] Deutsches Arch. f. Klin. Med., Bd. 5. [3] Deutsches Arch. f. Klin. Med., 1869. [4] Injuries of Nerves and their Consequences, 1872.

handy, and is, I think, free from the objections stated above. The only really new feature in the apparatus is a vulcanite two-way tap, which Messrs. Arnold and Sons have kindly made for me. This tap I attach to an ordinary siphon enema; one nozzle is for insertion into the catheter; with the other, or waste tap (B), a piece of indiarubber tubing is connected to conduct away the effluent from the bladder. The catheter employed should be, where preference is possible, a large indiarubber one, but the nozzle of the tap is tapered so as to fit several sizes.[1] In order to use the apparatus any residual urine is first evacuated by the catheter; the latter then remains full of urine. The enema and tap are previously immersed in the fluid to be injected, which is worked through the enema (the waste tap being turned off) a few times to expel all air, and the tap turned off while below the surface. The whole is then entirely free from air, the nozzle is pushed into the catheter, the stopcock of A turned on, and the ball of the enema slowly and gently squeezed empty of its contents; by this means from one ounce and a half to two ounces have been injected; the afferent tap is then turned off, the waste opened, and the process repeated as often as necessary. The tap is made of vulcanite, which is superior to brass, as it is much lighter, and so does not tend to drag the catheter out by its weight. I have employed this method of irrigation in a great many cases in

both sexes, and am fully satisfied with its convenience and efficacy. Water at the temperature of the body, to which a few drops of Condy's fluid have been added, I have found the most efficient and least irritating of all injections that have been recommended, superior even to carbolic acid and to quinine, the use of which is apt to be followed by some vesical tenesmus and discomfort.

As regards the quantity to be injected, distension of the bladder is of course unnecessary and harmful; the habitually slow distillation of urine should be remembered; at the same time it would appear that the condition of an empty bladder is one not of tonic contraction, but of passive collapse, I think, bearing these facts in mind, that the gradual and cautious injection of about two ounces of fluid at a time is a safe and practicable mean.

The relief which follows the evacuation of irritating and offensive residual urine, and the cleansing of the unhealthy and chronically inflamed membrane, is often truly marvellous; and I feel sure that the occasional judicious washing of the bladder in cases of chronic catarrh or low inflammation of that organ does much to prevent the extension of inflammation upwards, and so prolong life, while it greatly adds to the comfort of the patient, and for these reasons might be more frequently resorted to than is usual in such cases.

Regent's-park, N.W.

ON THE

TREATMENT OF THE PERINEUM IN PREGNANT AND PARTURIENT WOMEN.

BY WILLIAM A. DUNCAN, M.D., F.R.C.S. ENG.,
OBSTETRIC PHYSICIAN TO THE ROYAL HOSPITAL FOR DISEASES OF CHILDREN AND WOMEN.

THE importance of the perineal body in helping to maintain the female reproductive organs in a healthy condition, and the numerous ill effects arising from its partial or complete rupture, are, I think, not sufficiently recognised by many medical men, though they are constantly being brought prominently under the notice of gynæcologists. During the last fifteen months many women have attended the out-patient department of St. Thomas's Hospital suffering from various disorders, due, it appears to me, to the loss, in a greater or less degree, of the support of the perineum. As prevention is better than cure, these few remarks are written in the hope that they may induce my brother practitioners never to ignore a laceration, however slight, of the perineum.

1. *During pregnancy.*—It must necessarily seldom happen that we are called upon to operate on a ruptured perineum, for as a rule the patient seeks advice before she again becomes pregnant. In the following case, however, the discomforts due to the rupture were so aggravated by the gravid state as to compel the woman to apply for help. Mrs. J——, aged twenty-one, attended the hospital on Nov. 4th, 1882, and gave the following history: Has been married four years; has two children; first child was delivered with instruments. The perineum was ruptured, but reunited by wire sutures. In the second confinement (Jan. 29th, 1882) the perineum was again torn, but nothing was done to restore it. Since then the patient has suffered more or less from incontinence of fæces, and this trouble has greatly increased during the last three months, together with a constant sense of bearing down and backache. Catamenia have not appeared for three months. There has been some morning sickness, but patient positively asserts she is not pregnant. On examination, there is found a complete rupture of the perineum, extending through the sphincter ani and for half an inch up the recto-vaginal septum. The uterus is low in the pelvis and somewhat retroverted; bimanually, it is about as large as a small cocoa-nut. Notwithstanding that the patient was pregnant, I advised her to come into the hospital for an operation, to which she consented, and, with Dr. Gervis's kind permission, I took charge of the case. On Nov. 16th, the patient being under the influence of ether, I closed the rent in the septum, reunited the divided sphincter ani and the perineum, taking care to make the bases of the triangular raw surfaces unusually wide, and not extending the apices quite as high as usual. Four deep wire sutures with bars were used, and the superficial edges brought together with catgut. A self-retaining catheter was introduced into the bladder, a half-grain morphia suppository into the rectum, and the knees securely tied together. The operation lasted an hour and a half. The further progress of the case is briefly as follows. There was a good deal of sickness after the anæsthetic. An opium pill was given every night to keep the bowels quiet until the 23rd (seven days after the operation); then a warm oil enema was administered, and when the bowels had acted the deep wire sutures and the catheter were removed. The perineum was found to be firmly and completely united; no cystitis. The patient's stay in the hospital was prolonged by an attack of bronchitis. She was discharged cured on Dec. 14th, feeling perfectly well, and with absolute control over the fæces. She came to see me at intervals, and continued well. At 10 P.M. on June 23rd, 1883, labour pains set in, and the patient was delivered, ten hours and a half later, of a healthy male child. The perineum sustained no damage whatever.

Remarks.—This case is interesting, showing as it does that a pregnant woman may undergo rather prolonged anæsthesia, together with an operation on the generative organs, without interference with the pregnancy. Other severe operations have been performed without ill effect, at various stages of pregnancy, by Sir Spencer Wells, Mr. Cooper Forster, Professor Schroeder, and others; but, as far as I have been able to ascertain, there is no case recorded of perineoraphy in a similar condition which would help us in answering the question, How soon after union is a perineum likely to successfully bear the strain to be put upon it during the ensuing labour? Many women pass through the period of pregnancy with torn perineums without much discomfort, but in the above case the operation was, I think, not only justifiable, but clearly indicated. Obviously there is some risk run of abortion resulting, and this may be brought on either from the rather severe after-sickness which almost invariably occurs after operations on the female generative organs, no matter what anæsthetic be employed, or from the toxic effect of the drug on the fœtus.

2. *During parturition.*—Numerous measures have been employed to protect the perineum during parturition, but, from observations of over five hundred cases, I have come to the conclusion that most of them (such as supporting the perineum with the hand, stretching it with the fingers, placing the patient with her legs down instead of bent up

[1] In the cut the nozzles are represented rather too conical; it is important, for the reasons given above, to have the bore as large as possible.

in the usual obstetric position, &c. &c.) are of little value except in so far that they give the patient, her friends, and the medical attendant himself the idea that everything possible is being done to guard it against rupture, and when this happens it is put down as an unavoidable occurrence. And so it is very often. But we can, I think, not infreqently do good by regulating the rate at which the head descends on and distends the perineum, by applying pressure during a pain to the presenting part, with the fingers brought more or less into the shape of a cone. It often happens that the head, having pretty well dilated the perineum with pains of moderate intensity, recedes somewhat, but the next pain, which is one perhaps of great violence, rapidly forces it out, carrying every obstacle before it, and causing a rupture of greater or less extent. Time, certainly, is often an element of great importance, for it is well known that a part rapidly dilated may give way, while the same part slowly dilated may be induced to yield and dilate without tearing. The means I have found most effectual for saving the perineum are the forceps and lateral incisions, either separately or combined. The forceps act in a twofold manner. First, by it we can regulate the rate at which the head distends the perineum; and, second, lateral compression by the blades elongates the head, which thus more readily escapes through the vaginal outlet. In the last thirty-five of my forceps cases (twenty-four of which were primiparæ) the perineum was ruptured in three. Incisions are of great value in saving the perineum. One on either side of the raphe (at some distance from it), about half an inch long and midway between the anal and vaginal orifices; they should be made at the acme of a pain when the perineum is distended, so that the patient may not feel them much, or she may be given a few whiffs of chloroform. The incisions gape a good deal and relieve the tension immensely; they reunite readily. But if, notwithstanding all our efforts, the perineum ruptures, as it assuredly will sometimes, what then are we to do? Shall we leave the laceration alone and trust to chance for its healing, or shall we coaptate the edges by sutures? Now, it appears to me that there should be no hesitation whatever on this point. It is true, union *may* occur (especially if the rupture be slight), but oftener still it does not, rendering the woman more liable to septic infection from the raw surfaces, and, later on, to many uterine and other troubles.

From seeing, some few years back, a good deal of midwifery practice in the country, I know that really good practitioners often either ignore altogether lacerations which, at the very least, extend half-way to the anus, or make so light of them that they consider it unnecessary to do anything beyond, perhaps, ordering the nurse to keep the patient's knees together for a few days; the explanation of this is, doubtless, in some cases that the medical attendant thinks union will occur without sutures, but far more frequently from the fear that if he says there is a tear it may be attributed to neglect on his part; but surely nowadays most patients and nurses know that it is often unavoidable; at all events, they find out whether there is a laceration or not, and also the desirability of having it cured.

From the many cases of prolapsus uteri, retroversion and retroflexion, endometritis and endocervicitis, leucorrhœa, and ovarian disorders, with consequent ill-health, and too often chronic invalidism, that have come under my notice secondary to perineal laceration, I feel somewhat strongly on this point, and consider that any medical man who neglects to suture a ruptured perineum which extends half-way to the anus (and, *a fortiori*, one that extends further still), fails in his duty towards his patient. If one class more than another requires every care being taken to retain a sound perineum, it certainly is that of the lower orders, simply because their laborious occupations very soon induce uterine troubles when the support of the perineum is wanting. Quite recently I operated on a patient who, since her last confinement four years ago, has suffered from backache, leucorrhœa, "bearing-down pains," and inability to undergo exertion. She had been treated at several hospitals without relief. As the perineum was lacerated in half its extent, I considered it the *fons et origo mali*, and performed perineoraphy, with the result that the woman expresses herself as "quite well, and feeling a new being altogether."

It certainly is quite as essential for a medical man to carry to each midwifery case a perineum-needle with some wire or silk as it is to have a bottle of ergot. And how easy the operation is! I have performed it without an anæsthetic, but as a rule it is better to give chloroform, and for this it is not necessary, although of course preferable, to have another practitioner's help. The after-treatment is important. The vagina should be washed out night and morning with some disinfectant, the urine drawn off night and morning for about five days (or, better still, a self-retaining india-rubber catheter left in for the same length of time). The bowels should be kept quiet for six days unless the patient's general condition calls for an aperient, then *after* an oil enema has thoroughly cleared out the rectum, the deep sutures can be removed.

Lambeth-palace-road, S.E.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nullasautem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriâs collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASES OF MALIGNANT DISEASE OF RECTUM.

(Under the care of Mr. BRYANT.)

CASE 1. *Malignant Stricture of Rectum; Colotomy; Improvement.* (From notes by Mr. Downes.)—David S——, aged thirty-nine, a carpenter, was admitted on May 8th, 1882, when the following history was obtained: Patient is married; his wife has had six children and two miscarriages. He was quite well until two years ago, when constipation began to trouble him. This constipation has continued the most prominent symptom of his illness. Latterly the bowels have not acted from five to eight days at a time, and only then after medicine. The motions are hard, small, and in irregular masses. There is no pain on defecation. Six months ago he first noticed slime with his motions, and this with blood has accompanied them from time to time since. Appetite good, and patient has never been sick.

On May 12th colotomy was performed. The oblique incision was made in the left lumbar region. The colon when seen was drawn to the surface and stitched to the edges of the wound and opened. The arteries were tied with catgut. A drainage-tube was put on the posterior part of the wound, which was washed with hot iodine water and dressed with terebine and oil. On the 15th nothing had passed from the rectum; fæces escaped from the false opening.—20th: Pain in and some discharge from the rectum, but patient otherwise comfortable.—25th: A slight prolapsus at the opening; rectum washed out with water.

June 9th.—There was a good deal of pain in rectum, but the patient was better and got up for the first time. On July 5th he was discharged with a plug in the wound. The fæces continued to pass through the opening, and were of a soft yellowish consistence.

In November, 1882, the patient was comfortable, the artificial anus acting well; discharge of mucus from the anus occasionally; general condition good.

CASE 2. *Epithelioma of Rectum and Anus; Colotomy; Relief.* (From notes by Mr. Rolston.)—Richard K——, aged sixty-two, a farm labourer, was admitted on January 24th, 1883. History: Seven months ago the patient first noticed constant pricking pain round the margin of the anus, not worse on defecation. These pains gradually grew worse, and a month later he noticed a swelling about the size of a pea protruding from the anus, and observed blood with his motions. The swelling has increased in size and the pain become worse. He has had bearing down pains in the rectum ever since the swelling appeared. His motions are small and consist of blood and slime. He has been unable to sit down or lie upon his back lately. His bowels act twice daily.

State on admission: The patient is a thin, sallow-complexioned man, with his face a little drawn. He has an intensely fetid discharge constantly running from the rectum, composed partly of fæces and partly of slime, &c. On the left side of the anus protrudes a thick roll of growth. It extends up the rectum as a greatly thickened mass as far as can be reached with the finger. The patient suffered great pain during examination. There is a small gland in the left groin enlarged.

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On February 2nd, under chloroform, colotomy was performed.—3rd: The abdomen was a little full but there was no marked tenderness. A hard mass of fæces passed through the wound; wound healthy.—8th: Considerable prolapse of bowel from the wound, but the wound looks healthy. Some healthy fæces passed through the wound. No tenderness of abdomen.—23rd: Urine drawn off daily, as there is a stricture of the meatus of urethra.—26th: Prolapse disappeared.

March 4th.—The patient got up, and sitting before the fire felt faint and became noisy and unconscious, and his pulse stopped. He was put back to bed and given some brandy, which revived him. He said he felt pain across the chest.

April 1st.—Considerable prolapse at the artificial anus and a great mass of sarcomatous growth was protruding from the anus.—4th: The urine under the microscope showed a lot of bladder epithelium.—13th: Discharged, his motions passing chiefly through the wound. The urine has to be drawn off morning and evening.

CASE 3. *Ulceration of Rectum; Colotomy; Threatening Iliac Abscess; Convalescent.* (From notes by Mr. Heatherley.)—Philip K——, aged thirty-five, a baker, was admitted on Dec. 1st, 1882. On Oct. 27th, 1882, the patient was admitted into Philip ward, complaining of passing blood from the rectum. Two years before he had pain on defecation, and passed some blood with fæces. He was under Dr. Goodhart as an out-patient, without relief, but under the care of Dr. Connor the bleeding ceased. In July, 1882, the present attack began. The patient had diarrhœa, passing blood and slime, with a good deal of bearing down pain, and has lost flesh considerably. On admission to Philip ward the house-physician found the rectum to be rough and ulcerated. He was treated with Dover's pills and ipecacuanha wine, and the rectum was washed out with a solution of nitrate of silver.

On admission to Job ward the abdomen was rather full, and the rest of the body wasted. Mr. Bryant found the lower two inches or two inches and a half of bowel the seat of ulceration, not malignant.

On Dec. 15th colotomy was performed.—17th: Several motions were passed through the artificial anus.

Jan. 19th, 1883.—The temperature last night was 103·2°; afterwards diarrhœa came on, and a good deal of pus was discharged from the wound. This morning the temperature was 99·2°.—31st: There was still a slight discharge of pus from the wound. The fæces were well formed. No fæces passed from the rectum, but a little slimy mucus occasionally. The patient has felt a good deal better since the operation, and looks more cheerful.

Feb. 5th.—Less discharge, and patient feels worse; wound looks glazed and puffy. Later in the day some three drachms of healthy pus came from the wound.—21st: There has been for the last fortnight an indurated thickening and swelling of the lumbar region; no fluctuation, no tenderness.

March 2nd.—Discharge from sinus slight; rectum smaller than before operation; mucous membrane feels smoother.—21st: Colotomy plug of indiarubber, in the form of a cup, with a stem in the centre, to be fitted into artificial anus.—29th: Bowel between artificial anus and rectum washed out; some clots of blood and a little fæces came away.

April 5th.—Got up for the first time.—11th: There is an œdematous raised patch about half an inch by a quarter of an inch just behind the artificial anus.—17th: Last night patient had a rigor; temperature was then 103°, this morning it is 101°. Has pain in the right shoulder, and slight sore throat. Wound looks red; there is a good deal of discharge of pus and slough from lower bowel; there was decided swelling and tenderness around artificial anus, but no fluctuation.—27th: A good deal of discharge of pus from back passage, probably the discharge from abscess surrounding the bowel.

May 3rd.—Very little discharge from wound; passes about five ounces of blood and pus and débris from the rectum per diem.—18th: Urine alkaline, specific gravity 1021, no albumen or sugar, full of phosphates, triple and amorphous.—21st: Rectum examined; finger only introduced after some adhesions had been broken down. The ulceration was simple, and not indurated. After the finger was removed some pus and blood came away.

June 12th.—Went out. Wound looks healthy, and projects a quarter of an inch beyond the level of the skin. Still discharge from wound and from rectum.

LINCOLN COUNTY HOSPITAL.

CARIES OF RIGHT OS CALCIS; EXCISION; RECOVERY; CONDITION OF FOOT SEVENTEEN MONTHS AFTER OPERATION.

(Under the care of Mr. SYMPSON.)

As the permanence of cure after excision of a tarsal bone seems still to be a moot point in the minds of many members of the profession, the following case, in which the patient when seen seventeen months after the performance of the operation was found to have a sound and efficient foot, may be considered worthy of notice.

F. R——, a feeble, emaciated girl, aged sixteen, was admitted into the hospital on July 17th, 1882, suffering much from pain in the right foot, and inability to use it. The integuments of the posterior part of the foot were considerably thickened and indurated. Two sinuses, one on either side near the back of the heel, and another an inch in front of and to the outer side of the ankle, yielded a copious, thin, and extremely offensive discharge, and led to rough, exposed bone. Appetite bad; tongue coated; pulse 120, weak. Temperature 100° F.; bowels irregular; urine turbid, acid, free from albumen; sp. gr. 1020. Catamenia scanty and irregular. The girl had a short cough, with scanty mucous expectoration. She perspired profusely at night, and complained of occasional pain in the chest. There was dulness on percussion over the right apex, and wavy inspiration and slightly prolonged expiration were audible in the same situation. The patient was one of a family of nine—two boys and seven girls; and always enjoyed good health until two years and a half before admission, when she fell upon the ice with her foot doubled under her, after which she suffered acute pain, abscesses repeatedly formed and discharged, and she progressed so unfavourably that amputation of the leg was proposed by her then medical attendants. She was ordered a quinine mixture three times a day, and a linseed-meal poultice to the foot, and was put upon milk diet, with a pint of beef-tea daily.

As a careful examination seemed to prove that the disease was almost if not entirely limited to the os calcis, Mr. Sympson, after a consultation with his colleagues, on July 20th performed resection of that bone in the method advocated by Mr. Timothy Holmes, after which a splint with a footpiece was applied along the inner aspect of the limb. In the course of the operation the calcaneo-astragaloid ligaments were found to be relaxed and softened, and the surfaces forming the outer half of the posterior calcaneo-astragaloid articulation rough and denuded of cartilage. The operation was performed under strict antiseptic precautions, and the wound was dressed antiseptically until the 28th, when, the discharge having become offensive, it was syringed with a solution of chlorinated soda and dressed with lint dipped in carbolic oil. As the wound had three parts united half the sutures were removed, and the remaining ones were withdrawn on August 4th.

On August 25th, the catamenia being still scanty, she was ordered ten grains of citrate of iron and ammonia in an ounce of infusion of quassia three times a day. In consequence of the serious illness of her father the patient was discharged from the hospital on Sept. 9th, when a sinus behind the heel, and another on the front and outer side of the foot, still yielded some pus; but she was quite free from pain, could bear her weight upon the foot, and looked healthy and strong. After the operation the temperature never exceeded 101·2° F., and at the end of the week her pulse had come down to 100, from which it gradually decreased to 84.

The girl was last seen on December 13th of last year, when she could walk between three and four miles a day without fatigue, and without the assistance of a stick. The contour of the foot was good, with the exception of some appearance of flattening in the neighbourhood of the heel; the operation wound had healed quite soundly, and all the movements of the foot were well performed.

Another case in which Mr. Sympson had performed excision of the os calcis for extensive caries of that bone was shown at the annual meeting of the Midland Branch of the British Medical Association on June 25th, 1874. The boy could then run and walk well, and, without the least difficulty, hop on the foot which was formerly diseased. The operation had then been performed upwards of three years.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

FRACTURE OF THE ORBITAL PLATE OF FRONTAL BONE, AND PERFORARION INTO LATERAL VENTRICLE OF BRAIN; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. J. H. JACKSON, M.B. Edin.)

W. N——, aged seven, a strong and apparently healthy boy, came to the infirmary on March 31st. His mother, who accompanied him, stated that about an hour previously the child had been playing with a piece of wood about two feet long and half an inch in diameter, when he suddenly fell with his face on one end of it while the other was on the ground, and on rising up the stick was "fast in his eye," and had to be pulled out. On examination there was marked ecchymosis of the inner side of the left eyeball, but no apparent wound. There had been no vomiting or fainting; the pupils were equal, and the boy presented no abnormal appearance. The mother was requested to leave him in the infirmary, but she refused. On the following day the boy walked to the infirmary and home again, about two miles, and again presented no abnormal symptoms. On April 2nd the lad walked to the infirmary in the afternoon, and as he appeared a little dull and sleepy his mother consented to his remaining. In the evening his temperature was 99·2°, and he took his food well, and slept soundly during the night. At 9 o'clock next morning (April 3rd) he still appeared well, although the pupil of the injured side was dilated, and his temperature was 100·4°. At 10.30 A.M. he was found to be suffering from a marked convulsion. He had vomited immediately before the convulsion came on. After this he never regained consciousness, and died about 1.30 P.M., three hours after the first serious symptom set in.

Necropsy (April 5th, 10 A.M.).—On removing the brain a perfectly round perforation of the orbital plate of the left frontal bone was found, about half an inch in diameter, and evidently made from without inwards, as the inside edges were raised up. At the corresponding point of the surface of the brain a wound was found, through which the little finger easily passed into the lateral ventricle of the corresponding side. Along this track there was some pus, and the brain-tissue was evidently disorganised. All the other organs were healthy.

The only remedies employed were purgatives, rest, and applications of ice to the head.

Remarks.—This case is interesting—(1) because of the small external mark of violence, the stick having passed between the inner side of the eyeball and the inner canthus, without wounding either the eyeball or the canthus, and therefore apparently leaving no wound at all; and (2) because of the almost entire absence of symptoms until three hours before death.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Unusual Form of Dislocation of the Hip.—Wound of External Carotid; Recurrent Hæmorrhage; Temporary Ligature of Carotid Trunk with Ligature of the External Carotid at the Seat of Injury.—Angina Pectoris immediately followed by Pericarditis.—Empyema followed by Abscess of the Brain.

THE ordinary meeting of this Society was held on Friday, Jan. 25th, Sir Andrew Clark, Bart., President, in the chair. Discussion only took place on the medical papers, though part of the debate turned on surgical treatment.

Mr. WALTER RIVINGTON read the notes of a case of an unusual form of Dislocation of the Hip. On Aug. 5th, 1883, a man, aged thirty-four, was standing with his legs apart and his body bent forwards when some large packing cases fell upon him, striking him on the right side of the head and right hip. The head of the right femur was displaced from the acetabulum. The symptoms were complete immobility of the thigh, which was slightly flexed; abduction and commencing inversion of the whole limb, and shortening to the extent of three-eighths of an inch. Under ether it was readily reduced on the first employment of manipulation, the head entering the acetabulum with a click, and with slight grating. The dislocation differed from the ordinary sciatic form in the abduction, slight inversion, and less amount of shortening; and it did not resemble some published instances of anomalous displacements. It might best be described, perhaps, as the first stage of a sciatic displacement. On Sept. 11th the patient left the hospital cured.

Mr. WALTER RIVINGTON also read an account of a case of Wound of External Carotid by a Stab in the Parotid Region; Recurrent Attacks of Hæmorrhage; Temporary Ligature of the Carotid Trunk, combined with Ligature of the External Carotid at the Seat of Injury. The patient, a carman, aged thirty-one, was stabbed by his wife in the left parotid region on Dec. 24th, 1882. Hæmorrhage had ceased before his admission into the London Hospital, and his wounds were brought together by sutures. On Dec. 30th and 31st some hæmorrhage occurred, but it was readily arrested by pressure. Swelling of the left side of the face and erysipelas supervened, necessitating incision and the insertion of drainage-tubes. He went on well till Jan. 15th, 1883, when severe hæmorrhage occurred, arrested by pressure with a sponge and bandage. On the following morning he was seen by Mr. Rivington. On removing the bandage and compress blood gushed out in a strong jet from a wound over the position of the external carotid behind the jaw. Pressure stopped the hæmorrhage. To avoid loss of blood during the process of securing the wounded vessel Mr. Rivington cut down upon the carotid above the ordinary seat of bifurcation of the common carotid, and passing a catgut ligature round one of the carotid trunks (either the common or external carotid) tied it so as to stop the current without dividing the coats of the vessel. On removing the pressure from the wounded external carotid only a languid stream issued, and the vessel was tied above and below the opening. The ligature round the main trunk was then untied, but left under the vessel and the wound was closed, the ends of the ligature passing out between its lips. No more hæmorrhage occurred, and the patient made a good recovery. The catgut ligature dissolved and came away from under the main trunk spontaneously on the sixth day after operation.—Dr. COUPLAND observed that a very similar case had been reported in the last volume of the Society's Transactions by Mr. Pepper, and that the patient was present in the ante-room for examination.

Dr. DONALD HOOD related a case of Angina Pectoris rapidly followed by Pericardial Effusion. The history of the case was briefly as follows:—A gentleman, aged sixty-five, resting on a sofa, apparently asleep, was suddenly roused by the window curtains being on fire. He quickly jumped up to extinguish the flames, and within half an hour of this exertion he was suddenly seized with severe heart cramp. Seen shortly afterwards by Dr. Hood he was noticed to be blanched, barely able to speak, heart irregular and fluttering, pulse of peculiarly low tension, with agonising cramp-like pain over cardiac region. Hot stimulating applications, brandy, ether, and opium, were used freely, and the patient slowly lost the pain, and a general improvement of the circulation took place. Twenty-four hours after the commencement of the attack a soft pericardial souffle was noticed, within a few hours it had deepened into a distinct rub. From this time during the succeeding ten days the case assumed all the characters of one of pericardial effusion, the amount of fluid being but moderate, and apparently completely absorbed within the ten days. A fortnight later the patient was found to have a systolic apex murmur and symptoms of incompetency of the mitral valve rapidly developed. The patient died four months later from syncope, and at the time of death was the subject of cardiac dropsy. No post-mortem examination could be obtained. Dr. Hood suggested as a possible explanation of the primary attack with its subsequent train of symptoms that the patient was the subject of some fibroid degeneration of the heart. Roused from sleep by the flames, his alarm and exertions caused a sudden distension of the heart cavities which possibly gave rise to some lesion of the visceral layer of pericardium and so started the pericarditis. In support of this hypothesis Dr. Hood called attention to the series of cases of fibroid disease of the heart, collected and published by the late Dr. Fagge in the 25th volume of the Transactions of the Pathological Society, and stated that in more than half of these cases the patients were found to have been the subjects of pericarditis. He further suggested that fibroid degeneration of the heart should be looked upon as a possible factor in those cases of

pericardial effusion in which it was difficult to explain the cause of the pericarditis.

Dr. DE HAVILLAND HALL related a case which was somewhat similar to that of Dr. Hood's. A butcher, about middle age, was attacked with severe præcordial pain soon after an altercation in which he had been much excited. This was regarded as a case of angina brought on by mental emotion. Pericarditis afterwards developed, with moderate effusion of fluid, followed by death.—Sir ANDREW CLARK inquired what treatment had been adopted, and whether there was any pyrexia.—Dr. DYCE DUCKWORTH commented on the characters of cardiac pains. There might be a pseudo-angina. He had never seen a genuine case of angina pectoris followed by pericarditis.—Dr. MONEY asked what were the precise differences between the case narrated and one of ordinary, for example perforative, pericarditis.—Sir ANDREW CLARK explained that the mode of onset was held to be peculiar.—Dr. EWART made some remarks on the relationship of cardiac pain with true angina pectoris. He thought it possible that a rent might have taken place in an aneurismal aorta, which might lead to hæmorrhage and pericarditis. A coincidence of this nature might possibly have something to do with both the cases narrated, in the absence of a post-mortem examination.—Mr. CODDE ADAMS had lately seen two cases of alleged angina pectoris in which the autopsy revealed hæmorrhage into the pericardium.—Dr. HOOD, in reply, said it was a Sunday night, and he used ether, brandy, and opium because they were at hand. There was nothing wrong with the urine; the arteries were not degenerated. He did not think it was a case of rupture of an aneurism, for the man got well to a certain extent, and died later on with mitral disease. Dr. Money was referred to the text-books.

Dr. DE HAVILLAND HALL likewise narrated a case of Empyema followed by Abscess in the Brain.—S. N——, aged nineteen, a pupil teacher, admitted into Westminster Hospital, Aug. 20th, 1883. The patient had empyema following an attack of acute pleurisy three years previously. She had been tapped, and a drainage-tube left in. When first seen by Dr. Hall at Christmas, 1881, she was suffering from hectic fever in consequence of imperfect flow of pus; immediately, however, that perfect drainage was established, her condition improved, and for a year she was able to resume her duties. The reason of her last admission into hospital was the hope that the chest had sufficiently fallen in to allow of the withdrawal of the drainage-tube, but when this was done the evening rise of temperature which occurred showed that pus was accumulating, and the tube had again to be introduced. Just as the patient was about to return home she began to complain of headache; this was followed by vomiting. On the eleventh day from the onset of cerebral symptoms the temperature, which previously had been subnormal, began to rise. There were slight convulsions on the left side of the trunk and face, the drowsiness became more profound, and she died comatose. Shortly before death there was a copious purulent discharge from the left nostril. At the post-mortem examination, which was made by Dr. Hebb, the left pleura was found extremely dense, a cavity capable of containing several ounces of fluid lay between the opposing surfaces, elsewhere the parietal and visceral pleuræ were united. On removing the brain, an abscess in the left posterior lobe burst; no other pathological appearance was detected. The abscess, spherical in shape, and about the size of a hen's egg, lay in the white matter; the walls were nearly an eighth of an inch thick, hard, and of a purplish-brown colour; the contents were a thick greenish pus, which had an offensive odour. In commenting on this case Dr. Hall insisted on the importance of having a double opening in cases of empyema, the lower one being made, if possible, in the eleventh interspace, a drainage-tube being passed through the two openings and the ends tied together. By this means perfect drainage is attained. He claimed the case under consideration as a success, so far as the empyema was concerned, as the treatment was so far beneficial that the patient was able to resume her duties; whereas, prior to the double opening being made, she was much exhausted by the constant suppuration and consequent hectic. Turning to the question of cerebral abscess, Dr. Hall mentioned some cases in which this disease had followed empyema. In his case the thick abscess wall pointed to its being of many months' duration; the absence of symptoms till towards the end being explained by the seat of the lesion being at a distance from the motor and sensory centres, which apparently were not compressed. The two symptoms which ushered in the terminal period—viz., headache and vomiting—were those commonly observed in such cases. At the autopsy, in spite of careful search, no appearance of suppuration was detected at the base of the brain, and there was no communication between the abscess and the nose.—Dr. BURNEY YEO believed in the procedure adopted by Professor Lister—viz, free incision with excision of a portion of a rib, usually the seventh in the axillary space. He had had three cases do remarkably well under this treatment. An incision lower down often met with much thick pleuritic deposit and was a disadvantage. The authors in Ziemssen's Encyclopædia believed in incision in the anterior part of the chest. It was difficult to deal satisfactorily with an opening in the back part of the chest.—Mr. R. W. PARKER thought the best position and the best method different in different cases. Empyemata varied so much; some were loculated and required treatment accordingly. During the cure of an empyema the diaphragm rose, and so there was no necessity for an opening low down. The great principle to be aimed at was that of allowing a free and ready discharge. This could be done in many ways. Rather than remove ribs or have a double opening Mr. Parker preferred a free single opening with two tubes. In some of his last cases he had used Volkmann's spoon with a flexible handle to scrape away much of the thick fibrinous deposit from the walls of the empyemata. He would certainly not have been satisfied with the result of the treatment of the empyema in Dr. Hall's case.—Mr. PEARCE GOULD said that if Mr. Parker had seen the case on her admission to the hospital he would have had reason to be satisfied with the result. It must be remembered that the case was seen by him only after a long period had elapsed, during which the empyema had reduced itself to a fistulous opening. With regard to the cerebral abscess, he would not say whether it was directly connected or not with the chest mischief. The temperature for some days before death was not raised; that would be different from the majority of cases of septicæmia, though Mr. Hulke had told him that a subnormal temperature, with severe headache, indicated intracranial suppuration after head injury. Was the abscess a softened patch of tubercle? He agreed with Mr. Parker that all cases of empyema were not to be treated alike. In the case in question the diaphragm had not risen, the side was retracted, but there was a distinct space between the eleventh and twelfth rib, which he had noticed in other cases; this might be due to the action of the quadratus lumborum. A case of an officer in the army, who was the subject of an enormous empyema, from which thirty pints had been aspirated on different occasions, was treated by a free single antiseptic opening (in the tenth space in the posterior axillary line, and with a single drainage-tube), with an excellent result. This proved that a single opening was quite sufficient to effect a cure in even the most severe cases.—Mr. RICKMAN GODLEE considered that the purulent discharge from the nose might possibly have some relation to the cerebral abscess. What was the state of the ears and of the bones of the nasal cavities? He agreed on the inadvisability of opening empyemata low down. By the removal of portions of ribs (a method which he had lately practised extensively), very free opening and free drainage were obtained. There was no necessity to have two tubes. The excision of ribs answered remarkably well in the case of children.—Mr. BARKER could endorse the statements of Mr. Godlee. It was wise to remove ribs and to have a large drainage-tube. He had practised this method in his last cases. The excision of ribs does not add to the difficulty or the severity of the operation. It was remarkable how completely the ribs were renewed. The reproduction of bone was probably due to the action of the periosteum.—Dr. PERCY KIDD had made two post-mortem examinations on cases of abscess of the brain after empyemata. The abscesses were of acute formation, and in the second case a rib was bare.—Sir ANDREW CLARK spoke of the discussion as having elicited the fact that inflammation could occur without rise of temperature. Paradoxical as it may seem, he had witnessed the assemblage and progression of phenomena which go by the name of fever without any pyrexia. The case of a young married woman of phthisical stock, who had an empyema, and was sent into the country with a view to its absorption, but who returned with signs of mischief in the other lung, and who was, after all, surgically treated for the empyema with ultimate perfect recovery, was narrated. The case was treated antiseptically, but during the course

of healing of the empyema storms of fever arose at intervals which could be clearly put down to small accumulations of pus, and were generally got rid of by the use of the catheter, which was followed by the discharge of the small purulent collections.—Dr. HALL, in reply, said the case had been one of fistulous empyema for sixteen months, and he was very anxious that the incision should be made low down, which Mr. Gould accordingly carried out. The abscess wall was an eighth of an inch thick, and he thought, therefore, that the abscess must have been of some duration. There was no tubercle anywhere, no otorrhœa, and the breath was sweet.

Mr. JOHN H. MORGAN showed a child with Hygroma of the Right Forearm undergoing Spontaneous Cure.

Dr. HERON exhibited a living specimen of remarkable Emaciation in a Girl brought on by her persistent refusal of food.

MEDICAL SOCIETY OF LONDON.

Snake-poisoning.

THE ordinary meeting of this Society was held on Monday, Jan. 28th, when the President, Sir Joseph Fayrer, read his paper on the Nature of Snake-poison. (See p. 195.) Dr. WARING asked whether Sir Joseph had himself known any serious effect to have followed the sucking of a poison wound.—Dr. THOROWGOOD related a case which had come under his notice, in which death had resulted from asphyxia. Some alarming symptoms produced in the person of Frank Buckland, the naturalist, were also mentioned as having resulted from the use of a penknife to clean the nails, which penknife had previously been employed to lay open a rat stung to death by the bite of a cobra. The symptoms were relieved by sal volatile.—Dr. SANSOM had made experiments long ago which proved that bacteria and fungi could live in strong solutions of permanganate of potash; these would show that the snake venom could hardly be of a living nature, and was probably alkaloidal.—Mr. WALTER PYE spoke of the differences between viperine and colubrine poison. He suggested that the poison in the one set might be alkaloidal and in the other of a living nature.—Dr. NORMAN CHEVERS thought it possible that the juices of the snake might be antidotal to its poison, since the bite of a snake is innocuous on itself or on its own species. He alluded to the curious sero-sanguinolent exudation met with in most of the cases described, including the African one narrated by the President. The infiltration had the appearance of thin red-currant jelly.—Dr. MAIR had seen a fatal case of the very short duration of forty-five minutes. The valuelessness of permanganate of potash or ammonia, when once the poison was absorbed, was also believed in by him. He understood that the cobra poison was not harmful when taken by the stomach. He spoke of the alleged immunity of the mungoose.—Dr. PAUL related a severe case of poisoning which terminated in recovery.—The PRESIDENT, in reply, said that he most certainly believed the poison could be absorbed by a mucous membrane; he had seen the effects of such absorption over and over again in dogs, birds, frogs, &c. He had mentioned in his paper many facts which he had not the time to read. The blood of a person poisoned from a colubrine snake generally clotted, whilst that from a viperine poisoning remained fluid. We had very much to learn in all directions of this most interesting subject. He did not believe in the alleged immunity of the mungoose, for the reason that he had seen this active animal die after the infliction of a fair bite from a cobra.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on the 9th ult.; Dr. Gervis, President, in the chair.

The PRESIDENT announced the death (which had taken place that day) of Mr. B. R. Wheatley, who had acted as their assistant secretary from the foundation of the Society till about two years ago. A vote of condolence with the relatives of the deceased gentleman was moved by Dr. MATTHEWS DUNCAN, seconded by Dr. PLAYFAIR, supported by Dr. PRIESTLEY, and carried.

Hysterectomy.—Mr. KNOWSLEY THORNTON showed an enlarged uterus surrounded by multiple fibroids, the right ovary and tube attached, the stump of a large fibro-cystic tumour of the uterus (also shown), and a partly calcified fibroid, of the size of a fœtal head, which had to be enucleated in order to apply the serre-nœud. The parts came from a single woman aged fifty-five, from whom, on account of excessive hæmorrhage and rapid growth of the tumour, they were successfully removed.

Hæmato-salpinx.—Mr. KNOWSLEY THORNTON showed also the ovaries and tubes removed from a married lady aged twenty-nine. She had suffered from repeated hæmorrhages, which followed a severe emotional shock; and tumours were discovered to the left and right of the uterus. These were removed, and proved to be the tubes, full of tar-like blood and firmly adherent. There was also an ovarian cyst with commencing papillomatous growth. After removal of the diseased parts the discharge gradually ceased and the patient did well. Mr. Thornton thought the case either one of tubal pregnancy, or of hæmorrhage the result of emotional shock, the blood being prevented from escaping.

Pelvic Hæmatocele from Malignant Disease of the Peritoneum.—Dr. PLAYFAIR exhibited this specimen, which was taken from a girl of sixteen, from whom he had removed an ovarian tumour in April, 1883. At the end of November she was admitted into King's College Hospital with symptoms and signs of a retro-peritoneal hæmatocele, so large as to compress and obstruct the bowel. This was first aspirated, then freely incised and drained, with immediate but only temporary relief to the symptoms. At the necropsy the peritoneum was found studded with masses of soft cancer, one of which had ruptured and caused the hæmorrhage. No trace of the ovariotomy ligature could be found. He had not seen recorded a case of hæmatocele from such a source. He believed its association with the ovariotomy to be only a coincidence.

Observations on Puerperal Temperatures.—This paper, by Mr. E. S. TAIT, M.B., was then read. The patients observed were in the General Lying-in Hospital; sixty were primiparæ and sixty-five multiparæ. The day after delivery, on which the highest temperature most often occurred was the third, then the fourth, then the second. In twenty-five cases the highest temperature occurred during the second week, often from nervous causes. Lacerations of the perineum did not appear to affect the day of highest temperature. The average temperature was lower in those cases in which there was no tear than in those in which deep lacerations had occurred. In primiparæ the temperature appeared to be raised by labial tears, deep perineal tears, and the use of forceps; but in multiparæ no such effect could be traced. The temperature frequently rose without any physical cause to account for it; and in such cases it was often found that something had happened to disturb the patient's nervous system, such as fright, bad news, &c.—Dr. ROUTH said that in disease the temperature might be as much as three degrees hotter in the vagina than in the axilla. Unless, therefore, the temperature in the puerperal state were taken in each part, error might follow.—Dr. JOHN WILLIAMS thought that Mr. Tait had established two facts: that high temperatures were more common when the perineum had been deeply torn, and that high temperatures were associated with nervous conditions during the puerperal state. It was frequently said that tears of the cervix were causes of fever; he (Dr. Williams) thought they were rarely so. The relation of fever to fetid discharge was important; in many cases the fetor came on after the fever and not before it, and might therefore be inferred to be its result and not its cause.—Dr. GRAILY HEWITT thought the facts brought forward as to rise of temperature from emotional conditions most important. He suggested that it was probably due to temporary relaxation of the uterus and consequent absorption of septic matter. All that he had ever seen favoured the idea that the septic material was absorbed before the fever began.—Dr. DALY thought that fetid discharge preceded and caused fever.—Dr. PLAYFAIR had time after time observed in private practice cases of high temperature in which he was satisfied that Mr. Tait's explanation, that they were due to emotional disturbance, was the true one. It was important to distinguish these from the more serious pyrexia due to septic mischief. In the latter an initial rigor was rarely, if ever, absent. Nervous high temperatures were not confined to the puerperal state; and temporary high temperatures might be produced in the puerperal state by other than nervous causes. He knew of no facts to justify Dr. Williams's theory

of the relation between fetid discharge and pyrexia, and he hoped no one would be induced by it to underrate the importance of fetid discharges, for no woman could be considered safe in whom such existed.—Dr. GODSON mentioned a case of pyrexia due to an emotional cause. He considered it exceptional for rise of temperature from such cause to be preceded by a rigor.—Dr. MATTHEWS DUNCAN called attention to the value of a regularly constructed chart as against isolated observations. He was sure that in private practice as great variations of temperature occurred as in hospitals. All his ideas were unfavourable to the reception of the doctrine that the fever caused the putridity of discharge. Putridity was not an essential part of the worst kind of infecting material. Infection by putridity began with the taking in of the poison, and ceased within a few hours after stoppage of the supply. This was sapræmia without septicæmia. — Dr. CHAMPNEYS said that about the third day, on which the milk, the bowels, and surgical injuries combined to raise the temperature, diagnosis was very difficult, almost impossible. Pelvic inflammation, which was often quite ephemeral, could not be excluded without vaginal examination, which had been made in the cases recorded in the paper.—Dr. WYNN WILLIAMS said that if septic matter came in contact with a wound and was absorbed, it was followed by rigors with diminished temperature.—The PRESIDENT said that from his experience in private practice, and from observations made in the St. Thomas's Hospital Maternity Charity, he believed the average temperature in private practice was not so high as that in Mr. Tait's cases.—Mr. TAIT said that the observation of higher temperatures in hospital than in private patients he thought due to the greater frequency and regularity with which the temperature was taken in the former class of cases. Dr. Hewitt's explanation of the "nervous temperatures" he thought was negatived by the great rapidity of the rise and fall of the temperature in these cases. In many of them the patient looked and felt well, so that the rise of temperature would have passed unnoticed had it not been for the diligent use of the thermometer.

OPIUM-SMOKING DENS OF BOMBAY.

MR. J. C. LUCAS, F.R.C.S. Ed. of Ahmedabad, has favoured us with the following description of visits paid to several opium dens in Bombay:—

"The 'opium question' is always of peculiar interest to members of the medical profession; and last year, it will be remembered, the subject attracted special attention in the medical journals. There was quite a scare raised by missionaries in China and elsewhere, who would seem to have suddenly discovered a mare's nest, and, in consequence of a sensational fanning up of this, a considerable flutter of excitement was created in medical and political circles. On the one side was this alarmist view of the matter, and on the other, and to counteract it, were those of Dr. Moore, of H.M. Indian Medical Service ('The Other Side of the Opium Question'), and Sir Geo. Birdwood (*Times*). According to the former, opium, when taken in moderation, is not only not injurious, but is decidedly beneficial in the case of Asiatic races habituated to its use, and compares favourably with alcoholic beverages. We are told by Sir George Birdwood that it aids digestion, *per se*, in vegetable feeders, such as some Hindu castes are, and thereby tends to prevent dyspepsia.

"With the above brief prefatory remarks I propose to give here a short retrospect of a recent visit to several of the opium dens of Bombay. I understood that the opium-smokers frequented these places almost invariably at night, and so my visit was between 10 and 11 P.M. On entering by a small door I noticed on either side raised places, covered with matting; they were about two feet from the ground, and about four feet wide, with a path in the intermediate space, from which I made my observations. On these raised seats are to be seen the customers or frequenters of the opium dens, some smoking their pipes, others asleep from narcotism, with their pipes lying alongside them, and others, again, in a transition state. The pipe, in most places, consisted of a China inkstand, into the mouth of which is affixed a tube of bamboo about eighteen or twenty inches long, and in the centre of the bowl is a hole, in which the opium is inserted, and lit up by being held to the flame of a lamp, and the smoking is done in the ordinary way. In some of the shops I observed crude opium is employed, while in others it is placed in a vessel, melted over a fire, and then mixed with bran, apparently to render it more combustible. The atmosphere of these apartments, which in the majority of instances I found to be overcrowded, was extremely foul, and, in addition to the ordinary impurities, contained the volatile constituent parts of opium. Some of the smokers described their sensations, but concerning which there was nothing worthy of mention. In a few of these haunts I saw women (opium-smokers) who lay alongside of the men in a state of narcotism. In two other places I saw a number of women loitering about outside, and I was told by a European policeman who kindly accompanied me that they were prostitutes waiting there 'to pick up men.' It would appear from this that opium produces an aphrodisiac action; and it is somewhat remarkable in connexion with this point that in the neighbouring liquor-shops no women were to be seen to gather for the same purpose. The majority of these opium-smokers, I learned, were bad characters, known to the police. Some have only one pipe, after which they doze off, and remain in this state of stupor for from about a quarter of an hour to an hour or two, when they wake up and go away. Others have a second and third pipe, and others, again, indulge several times, and pass a good part of the night in the pleasures of opium-smoking. As a rule, after the first entry and the first pipe or two conversation almost ceases, but occasional groans are heard, and heavy, and even what simulated stertorous, breathing. In some of the places inspected by me a mixture of opium and Indian hemp was smoked. I was much struck with the expression of face of these opium-smokers, as being very degraded and dissolute specimens of humanity, and as a rule they seemed to be ill-nourished and starved in appearance. Before bringing this imperfect sketch to a close, I desire to invite the attention of the Health Department to the necessity of seeing to the compulsory provision of proper ventilation in these licensed places of public resort, as well as the limewashing of the walls, &c., at certain regular intervals, in order that the 'fascinating powers of opium,' as De Quincey styles them, may not be accompanied by toxæmic results, and to lessen the risks of imbibing the virus of cholera, &c., when present."

"THE MAYOR OF DOVER ON THE VACCINATION LAWS."

To the Editor of THE LANCET.

SIR,—I have just read the article in your issue of last week, headed as above. In reply, let me say that I am glad to possess this curious specimen of advocacy of your quack theory.

The following extract exhibits a combination of folly and error seldom met with—viz., "The liberty to have small-pox is exactly like the liberty to have your house on fire." You reason here as if you had none. The oracular assumption concerning my knowledge of the subject is further evidence of the balderdash by which compulsory vaccination is upheld. I unhappily have considerable knowledge of the plague of small-pox, acquired by witnessing its ravages in several countries besides my own. In China, forty years ago, two of my children were vaccinated; the medical man regarded the progress of the disease as most satisfactory, and the result perfect; some time afterwards they were both seized with small-pox, prevalent at that time, and had it in a most virulent form. I called in five highly qualified medical practitioners, who did not pretend to understand it, and only expressed surprise. I suppose you will not suggest that vaccination can effect anything in warding off a visitation of the epidemic; so the only question is that of results, on which overwhelming evidence demonstrates that vaccination has not reduced mortality from small-pox. If, as is supposed by some, a person who has had small-pox is less susceptible to it afterwards, which I do not admit, this is an advantage far too dearly purchased by compulsory vaccination. I am, Sir, yours faithfully,

ROWLAND REES,

5, Esplanade, Dover, Jan. 28th, 1884. Mayor of Dover.

P.S.—In fairness you will of course publish this reply.

*** The Mayor is quite right. We insert his letter, both in fairness to him and as a special treat to our readers. It is a study all through, but too deep for our shallow minds. Perhaps the passage which, without further elucidation from the Mayor, we find most above our comprehension is the last one.—ED. L.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 2, 1884.

IN common with Her Majesty's other subjects, we look forward with interest to the meeting of Parliament. We should do so the more, by the way, if Her Majesty would favour the public and the metropolis with her presence on the occasion, and lend the light of her countenance to a Parliament which is supposed to be confronted with problems of great social and national importance. We devoutly trust that only such questions will engage the attention of Parliament, including a measure for the better regulation of medical education and registration. Medical men are generally thought to be apathetic in matters political. This opinion is only partially true. There are generally medical men in all constituencies who can and who do exercise a very important influence on public opinion, and the number would be greatly multiplied if our legislators would concern themselves more with eggs and less with scorpions, if they would give the people bread instead of offering them a stone. The days are certainly coming when legislation will have to be more practical than it has been. The conviction is growing that our laws have more to do with the creation and continuance of human ills than we have been accustomed to think or is admitted in the well-worn couplet of Dr. JOHNSON. It is indisputable that much more might be done to make the people healthy and happy and sober than has been done. Our own words may be turned against us. We may be told that legislation has given the people bread. It has certainly done something in this direction, but only enough to show that it ought to have done more. It has not given the people water. Many a poor broken-winded woman in a third storey has to fetch her water from the basement in pints when with a little wholesome legislation she could have it in gallons on her own floor. And the water that is supplied under public sanction is often so impure as to create widespread disease and supply excuses to those who denounce it as the most dangerous of drinks. Legislation has not given the people cheap meat, though America and our colonies could supply it at half the present price if such supplies could be favoured and facilitated. The sea is teeming with fish, but it is not allowed to find its way into the mouths of the poor, or arrangements which hinder such a beneficial destination are permitted. Meantime the condition of large classes of the poor is one of imperfect nutrition, to say the least. The houses of the poor are dear and deadly, supplying the minimum of accommodation at exorbitant rents. We are not among the unreasonable who attribute all the miseries of the people to the faults of their rulers. We are well convinced that men must to a large extent work out their own salvation from poverty and sin and misfortune. But the very vices of the people are favoured by legislation. The drunkenness of the country, which is its chief disgrace, is untouched, or touched with such a light hand that publicans multiply and thrive, and habitual drunkards retain their liberty to ruin themselves and their families. The fiscal arrangements of the nation, it is understood, depend too largely on a good amount of liquor being consumed to prevent any Chancellor of the Exchequer looking with favour on any serious proposals for increasing the sobriety of the nation. Liberty is so much worshipped that men are permitted to contract and spread disease, and to indulge in habits that are as suicidal as walking into a pond or into the fire.

We are not writing in any party spirit. The party in power is the one which placed the corn-supply of the nation on an extended basis, and showed cheap bread to be within the range of practical politics. The President of the Local Government Board has evinced a personal interest in the housing of the London poor which excites hope and admiration. The present Government have shown an interest in medical questions, and a respect for the medical profession which we gladly acknowledge, as we have often acknowledged before. But we are impatient, in the face of great social and sanitary problems, with the trifling and temporising measures which excite the interest of mere "parties." Our respect for Parliament needs to be revived by great measures that will promote the virtue, the health, and the education of the people; that will show a pity for their miseries, and stretch out a helping hand for their deliverance. Is it beyond the power of leaders, in the face of all the misery that has been exposed by men and organs of all parties, to forget party strife and party objects, and all the arts of obstruction, and to consult, like true physicians of the State, with no other object than the good of the patient? We shall judge the session not by the mere extension of political privileges to classes that need bread and water and instruction rather than votes, but by the humanity of its legislation, and the degree in which that legislation will abate disease, abolish drunkenness, increase food supplies, and promote that good-will among the various classes of the community on which natural prosperity and peace so much depend.

ONE of the most common and troublesome deformities of the foot is that sometimes called spurious talipes valgus, but better named talipes planus, or flat-foot. It is an acquired deformity characterised by a flattening or falling down of the arch of the foot—the inner longitudinal arch. Upon this arch depends not only the form of the foot, but the distribution of the weight of the body over the foot generally, and the grace and ease of walking connected with the rising forwards on the toes. The short posterior pillar of the arch is formed by the os calcis, its summit is the astragalus, and the longer broader anterior pillar is composed of the scaphoid, the three cuneiform bones, and the three inner metatarsal bones with their connecting joints. The astragalus rests insecurely upon the os calcis, being held in its place partly by the strong calcaneo-astragaloid ligament beneath its head, and partly by the strong plantar ligament passing forward from the sustentaculum tali to the under surface of the scaphoid. The other plantar ligaments connecting the bones entering into the arch assist in maintaining them in position, and considerable support is also given to the arch by the strong

deep plantar fascia, particularly its inner part, and by the tibial muscles and the long flexor muscles of the toes and the abductor pollicis.

The cause of flat-foot is to be found in any condition that disturbs the natural equilibrium between the weight transmitted to the arch and the power of these fibrous and muscular structures to sustain the pressure. We thus find it coming on about puberty, or between puberty and full manhood, particularly in persons exposed to long standing, carrying heavy weights, or other modes of straining the arch, and in persons whose fibrous tissues are weak and lax after acute illness, or from chronic anæmia and mal-nutrition. From these various circumstances it is common in policemen, servants, and shop-girls.

The first and most direct effect is, of course, the flattening of the arch; the astragalus passes downwards and in over the os calcis, and its head projects on the inner border of the foot, where, in the erect posture, it rests upon the ground. The main deformity occurs at the astragalo-scaphoid joint. The scaphoid is forced forwards, and the various ligaments mentioned above are stretched and lengthened out. The "waist" of the foot is lost, the instep falls in as well as down, making that part of the foot broad as well as flat. In walking the step loses its elasticity, the foot is raised as a whole, the ability of rising forwards on the toes is more or less completely lost, and progression by so much loses its grace, its ease, and its rapidity. But it is on account of pain that these patients usually seek surgical advice. The causes of this pain are not far to seek. As all who have sprained a joint have experienced, the stretching of a ligament gives pain, and it is this stretching of the plantar and interosseous ligaments that is the most constant source of pain in flat-foot. But there are others; the head of the astragalus and the scaphoid bone press upon the sensitive sole-muscles and nerves; while in some cases pain up the leg is complained of, which seems to be due to the stretching of the deep flexor muscles, or possibly to their fatigue, brought on by powerful and long-continued contractions, with the view of in some measure correcting the deformity. In this connexion we may mention one of the most characteristic features of the pain; it is always worse after standing or walking, especially going upstairs or uphill—worse at night than in the morning. This is because in the earlier parts of the day and of exercise the muscles of the toes—long flexors and abductor pollicis—are able by their contraction to keep up the arch just sufficiently to relieve the ligaments from actual straining, and it is only when, unaided, the weakened ligaments have to bear the superincumbent weight that they stretch and excite pain. In very severe cases a still further deformity is observed, as was pointed out by Professor OGSTON in the paper printed in our columns last week. The heel becomes raised, giving the foot what he has called a canoe shape. This raising of the heel, due of course to the action of the calf-muscles, may be thus accounted for. Normally, the action of the calf-muscles in progression is to raise the foot on the toes, and to throw the body forwards. In severe cases of flat-foot this motion is completely lost, and by the falling forwards and in of the astragalus the front of the os calcis is also depressed, and the tuber calcis is tilted up. Then when the muscles contract, being unable to raise the entire foot, the whole muscular strain is exerted upon the os calcis, and this is gradually raised from its normal position. The difficulty of progression tends to increase the power with which the calf-muscles contract, and at length a very marked raising of the heel may be induced. More common still is tightness of the peronei tendons behind and below the outer ankle; this is probably due to the continued contraction of these muscles aiding in the effort to raise the body forwards on the toes in walking, and in part to the tilting up of the outer border of the foot as a natural result of the fall of the arch.

The treatment of this deformity is very frequently satisfactory; but much depends upon its duration before treatment, the extent of the deformity, and the ability of the patient to conform to the surgeon's directions. Prolonged rest, and especially the avoidance of all standing still, combined with the exhibition of tonics, are means of treatment of much avail, both alone and in combination with other means, such as the actual cautery freely applied over the inner part of the instep, with the object of hastening the shortening of the elongated ligaments in the sole of the foot. More generally boots of a particular kind are worn; these boots should have long low flat heels to support the whole of the under surface of the os calcis, a steel spring in the "waist" of the boot, and in addition a valgus pad, which is best made by fixing rubber or leather inside the boot under, and to raise and support, the arch of the foot. Mr WALSHAM introduced to our notice last week a good form of this boot. In severe cases the valgus pad should at first be small, and gradually increased in height. Where the instep has fallen much inwards, a T-strap passing over the inner side of the instep and foot will help to correct this displacement. Tenotomy of the peronei tendons, when they are tense and appear to prevent correction of the deformity, is often practised. Forcible inversion of the foot and immobilisation in a plaster-of-Paris splint are employed in some bad cases. There occur, however, cases where such treatment is impracticable owing to the time and money required for it, or ineffectual from the extreme degree of the deformity, and the secondary changes in the shape of the bones. For such cases Professor OGSTON of Aberdeen has devised a new operation which is of particular interest, as it shows the aggressive nature of the operative side of the surgical art, and the confidence surgeons feel in the safety of the knife when they are also able to secure an aseptic condition of the wounds made. Professor OGSTON is already well known in connexion with osteotomy of the internal condyle of the femur, and he is also one of the most advanced followers of Sir JOSEPH LISTER. His plan is to cut down upon the astragalo-scaphoid joint, remove the articular surfaces, and then, replacing the bones in their right position as far as possible, to suture them together by ivory pegs. In this way anchylosis of this joint is produced, and to that extent the deformity corrected. As, however, the deformity is not limited to a displacement at this joint, such an operation does not completely restore the shape of the foot, but as it keeps the head of the astragalus from pressing down into the sole, the main source of pain is removed and the justification of the operation found. The cases in which such a procedure can be warranted are but few, and for most of our readers

its only interest will lie in the indication it affords of the value and the influence of improved methods of wound treatment.

OPINIONS may vary as to the expediency of giving a more compulsory character to much of our sanitary legislation which is at present of a permissive character, but there will be none as to the necessity of strictly enforcing so much of it as is not left to the discretion of sanitary authorities. In framing the Public Health Act, 1875, the Legislature intended, amongst other things, that every sanitary district should have adequate means of drainage and water-supply, and it placed an obligation on the Local Government Board to institute inquiries in cases where complaint was made to them that sanitary authorities had made default in these and other respects, and to see that the necessary works were carried out in cases where the authorities were shown to be in default. From time to time such cases have been reported, but as a rule it has been found that in cases where an order has been made by the Local Government Board under Section 299 of the Public Health Act, requiring the execution of certain works within a specified time, the authorities in question have proceeded to carry out that which has been ordered. A case has, however, just come before the Court of Queen's Bench in which such an order has been ignored, and the central authority has applied to have it enforced by writ of *mandamus*, a method of procedure which is found to have distinct advantages over the alternative sanctioned under the same section, and which is that the Local Government Board may themselves appoint a person to superintend and carry out the needed works.

The case we refer to is that of Waltham New Cross, which lies within the district of the Cheshunt Local Board. From the affidavits which were submitted to the court, it would appear that as far back as 1874 an official of the Royal Gunpowder Factory at Waltham drew the attention of the Local Government Board to the fact that several cases of typhoid fever had occurred there, that Mr. GARLIKE, the local medical officer of health, had described the locality as "the most pestilential place he was ever in in all his life," that representations had been uselessly made to the local authority, and that that body was guilty of determined neglect. Medical evidence was also submitted to the effect that there were some two hundred houses closely placed together, and that the locality was practically honeycombed with cesspools and shallow wells. Correspondence ensued, and Mr. GARLIKE fully supported the complaint, alleging that sewage matter oozed out into the soil, that there was not a drop of water fit for domestic use, and that apart from the cesspools there was no means of drainage except into filthy ditches. In 1875 Dr. THORNE THORNE inspected the place, and reported that the sanitary circumstances of the district were "thoroughly bad," and that there was an utter absence of any proper means of sewerage and drainage. Further correspondence took place through a series of years, and at last, in 1882, the Local Government Board issued an order stating that the Cheshunt Board "shall perform their duty in the matter of the complaint, and shall commence forthwith to execute the works necessary for that purpose, and complete the same in nine months." Then followed applications for delay, which were refused; and, lastly, nothing being done, although nearly ten years had elapsed since the original complaint, the Local Government Board applied to the court for a *mandamus*, and a rule *nisi* was granted. But even after this the representatives of Cheshunt, to whom is delegated the function of caring for the health of their constituents, refused to act, and they declared that they should do nothing until the rule was made absolute. When the case again came before the court the defaulting authority put in no appearance, and a rule absolute was granted on the application of the Solicitor-General.

We assume that the Cheshunt people will now feel obliged to act, but it is difficult to understand why they took no steps to prevent the rule being made absolute, and yet allowed matters to go on to the bitter end; and this at a cost to themselves which cannot be inconsiderable. Their failure to appear in opposition to the rule must be accepted as a tacit admission that they had no defence to make, and we can only assume that, since the works of sewerage which will become necessary must, on account of the flat-lying nature of the district, be of an expensive character, the object of the authority has been to show their constituents that they have put off a somewhat costly undertaking as long as they could, and that even now they are not directly responsible for involving the district in the necessary expense. The Local Government Board has certainly not been hasty in the matter, and it is to be hoped that, after the long delay which has occurred, this savoury locality will at last be made fit for the community which has grown up there.

DR. MIGLIORANZA, in the *Archives Italiennes de Biologie* (tom. iv., fasc. 2), having practised a series of experiments in which he injected milk into the veins of dogs, draws the following conclusions. It is a mistake to inject milk instead of blood into the veins of an animal; for milk must be digested to become an aliment, and if it be injected its albuminoid and fatty matters simply pass out of the body by the urine. Sugar of milk transfused into the veins passes in part into the saliva, for dogs in which this operation has been performed may be seen to lick their lips as if they perceived a sweet taste. The presence of a notable quantity of milk in the blood before this milk has undergone the appropriate digestive processes is unassimilable and hurtful; it produces vomiting, diarrhœa, prostration, and ultimately even death. The butyric element of the milk transfused into the blood without antecedent digestion produces fatty renal infiltration and chyluria, notwithstanding antecedent filtration of the fluid injected.

In the treatment of cholera the transfusion of serum, as recommended by ALBERTONI, might be employed, but not the transfusion of milk, as THOMAS has suggested. In anæmia the transfusion of blood may no doubt be adopted; but not of milk, since the latter contains no blood-corpuscles, but only adipo-caseous globules. The filtration of fat casein or of milk transfused into the veins takes place through, and by means of, the kidney, without any augmentation of the blood-pressure in the capillary circulation of the kidneys; indeed, it might be said, under conditions of diminished pressure. Dr. MIGLIORANZA thinks that the accidents of chyluria and of albuminuria in certain morbid states may depend also on stasis of blood or on dilatation of vessels. The sudden introduction of a large quantity of milk into the circulation produces great diminution of blood pressure, due

to collapse of the force of the cardiac systole. Before injecting milk into the blood it should be filtered, to prevent corpuscles larger than those of the blood from being present, which might cause obstruction in the pulmonary and cerebral circulation. But even when this filtration is effected an abundant and direct transfusion of milk into the blood is always followed by inconvenience and danger. The proposition made by ALBERTONI that the serum of milk, and not pure milk, should be injected into the veins of those affected with cholera is good, for none of those ill effects are then likely to follow which are attributable to the fatty parts of the milk; and in point of fact ALBERTONI has actually injected from 90 to 100 grammes of serum of milk into the veins of dogs without observing any ill effects. Casein introduced directly into the blood, after being digested, is transformed into urea rather than into pabulum for the tissues. Hence much urea is found in the urine of dogs after the intravenous injection of milk. From all this it is evident that the fat and casein of milk transfused into the blood before being digested represent an unassimilable material which is discharged from the organism. If the animals experimented on by THOMAS did not die, it is because he only injected very small quantities of milk, and even such quantities, as LABORDE has shown, may occasion serious accidents. Carbonate of ammonia introduced into the blood, notwithstanding the opposite statement of RITTER and FELTZ, produces symptoms that precisely resemble those of uræmic fever, or ammoniæmia—viz., tetanic convulsions, dyspnœa, excitement of the circulation, hyperæsthesia, and coma. When urine decomposes in the bladder and ureters, with development of ammonia, this substance, absorbed as it is readily by the blood, causes the serious symptoms that are observed in diseases of these organs. Urine directly injected into the blood is not poisonous, but when the products of its decomposition are injected these deleterious effects are immediately displayed. The presence of bile, if in sufficient quantity in the stomach, is poisonous. Cholesterin is very poisonous when it is in quantity slightly above the normal. The bile is probably the means by which it is eliminated. The presence of aromatic substances in the blood is not poisonous. The asphyxial form of acute alcoholic poisoning is probably due to the transformation of alcohol into aldehyde.

THE PARKES MUSEUM.—Notwithstanding the important services, social and scientific, which the Parkes Museum has already rendered, and the universal commendation which it has received from all quarters, the practical support as yet accorded to it has not, we regret to hear, been sufficient to provide an adequate annual income. Those who at present have control of this institution have proved their earnestness not only by assiduous work but also by monetary contributions, and we hope that the profession generally will support the council. The annual membership costs only a guinea, and we believe that the museum can be kept going for the very modest sum of £600 a year. The importance of having a central institution of this kind, together with a thoroughly good library of books dealing with questions of sanitation, need not be insisted upon, and a very moderate amount of support would ensure the permanent success of the Parkes Museum. It may, perhaps, be well to add that all communications should be addressed to the Secretary, Parkes Museum, Margaret-street, W.

Annotations.

"Ne quid nimis."

MEDICAL LEGISLATION.

WE have every reason to believe that the Government are most anxious to effect the long-expected medical legislation in the course of the coming session, and that as early as possible. We trust that both parties in both Houses will assist the Government to carry out the views of the Royal Commission, approved by a lawyer like Sir George Jessel and a medical leader like Sir Wm. Jenner.

THE INTERNATIONAL MEDICAL CONGRESS.

A LETTER just received from Professor Panum, the President of the International Medical Congress, gives some interesting details of the arrangements in progress for the meeting in Copenhagen on August 10th. In June of last year a provisional programme of the business to be transacted in each of the different sections was sent to the principal medical men in each country interested in the various subjects. Many valuable communications have been promised in consequence. Nearly four hundred non-Scandinavian colleagues have already announced their intention to attend. From France, amongst others, come Pasteur, Paul Bert, Ranvier, Charcot, Verneuil, Cornil, Hayem, Mallassez, Chauveau, Ollier, Trippier, Lepine; from Italy, Bizzozero, Mossa, Golgi, Peromento, Novaro, Reymond, Giacomo, Baccelli, Tomasi-Crudelli; from Holland, Donders, Guye, Engelmann, Heinsius; from Germany, Virchow, Ludwig, Esmarch, Volkmann, His, Braune, Kronecker, Munk, Kühne, Heidenhain, Voit, Bernstein, Grohe. The most eminent men of Sweden and Norway have become members of the various committees of organisation, so that the Congress, at the instance of the President himself, will possess a truly Scandinavian character, and the medical men of Sweden and Norway will attend in as large numbers as if the Congress were one of their own. Professor Panum trusts that a large number of English medical men will be present, the more so as English is one of the official languages. The Danish Parliament and the city of Copenhagen are taking an active interest in the success of the meeting, so that "we shall not be ashamed," Professor Panum adds, "of being compared with previous Congresses, always excepting the Congress of London, whose prodigality we certainly shall not have the presumption to imitate. The King and Crown Prince evince great interest in the success of the meeting. We do not, however, intend to mention in our programme any festivities, solemnities, and such like. We would rather emphasise our intention to make the Congress a meeting for strictly professional and scientific work."

THE GROCER'S LICENCE.

IF any provision of law is actually proved to be both needless and harmful to the interests of the community, it ought to be abrogated. This would seem to be a self-evident proposition. And so it is as far as abstract argument is concerned; but the moment the conclusion to which sound and simple reasoning conducts the impartial inquirer comes to be applied, the argument is too often found to be ineffectua This is notably the case with regard to the grocer's licence. Nothing whatever has been gained, except an extension of business and increased profits in trade, by one class of shopkeepers at the expense of another. The public has not benefited in any conceivable way by the possibility of procuring spirits, wine, and beer from the seller of tea and sugar instead of, as before this Act was passed, from the wine merchant or licensed victualler. The only persons who

have gained anything whatsoever, besides the grocers, are their landlords; and it must be manifest to all that it is the interest of the great landowners which really blocks the way of a much-needed reform. The owners of property let to grocers fear to vote for the repeal of the Act under which the grocer's licence is granted lest their tenants should be offended, and in the end their own pockets should be injured. It is necessary to speak plainly on the subject, and it is notorious that this is the fact. On many of the largest properties in London, particularly in the West-end, the number of grocers' shops is very considerable, and the great landlords are accordingly deterred from acting on their convictions in the matter; or, to put the case more politely, let us say their judgments are unconsciously biased by self-interest. Such is the political situation of the question. A Bill is to be brought in during the ensuing session under the auspices of the Church of England Temperance Society—in fact drafted by the Executive Committee, as we learn from the *Temperance Chronicle*—with a view to deprive the grocers of their *spirit* licences first, and as it is made to appear *solely*. This is not fair fighting. The *Chronicle* admits in a leading article in its recent number that the principle of its procedure is "one thing at a time," and it predicts, for the encouragement of its readers, that "there will be advantages to the Temperance cause in the success of this Bill which do not, perhaps, all of them appear upon the surface, nor would it be politic probably to make some of them the subjects of discussion in the public press." We are unable, indeed, to support this Bill. It is not an honest measure, and it is not a sufficient one. We oppose the grocers' licence boldly, and solely on *principle*. We believe that the facility which it offers for the introduction of spirits, wine, and beer into houses clandestinely is most injurious, and has certainly caused, and is still causing, much dire social mischief. Women of all ranks and classes are encouraged—indeed, enabled—to drink secretly, because they can procure intoxicants without either visiting the establishments of licensed victuallers or incurring the risk of dealing direct with spirit, wine, and beer merchants. There is also something, though not so much as some pretend, in the fact that grocers *offer* their commodities to their customers, and this induces some to purchase who would not otherwise do so. We take our stand on the hard ground of expediency, and we say it is not necessary, and it is unsafe, to allow grocers to sell intoxicants. Let a simple and straightforward Bill be brought in to repeal a bad law, and it shall have all the support we can give it, on the ground of strong conviction and *con amore*.

AUTOGENETIC DISEASE.

THE elucidation of the first steps in the process of a subtle disease still baffles the observation of the most astute clinical physician, and for many reasons, the bulk of which may be summed up in the ignorance of our knowledge of molecular physiology. Morbid action may go on to an alarming extent without any warning of its presence either to the individual affected or to the skilled investigation of the scientific physician. Could we but know the initial change in the molecular state of those tissues which are about to become cancerous, or could we pierce the mystery of those conditions antecedent to the production of universal fibroid arterial disease, we should, indeed, be in the possession of substantial knowledge. Meanwhile we can but hope for this consummation as the true basis for the establishment of some knowledge concerning dynamic disease. We have received a pamphlet by the distinguished German physician, Dr. Senator, which must be regarded as attempting to throw some light on autogenetic disease. He believes that acute and chronic dyscrasia—in other words, cachexia—may arise not only through the retention of normal excretory products, but also through the absorption and dissemination of abnormal products manufactured in the body. The principal source of such autogenetic poisons resides in the morbid action of the digestive apparatus of the bladder and in severe anæmic conditions. The effects of this dyscrasia are chiefly observed in the nervous system and in the kidneys. Under the acute nervous affection, besides "uræmia" there is another group of symptoms which may be described, with Kussmaul, as "diabetic coma," of which the causes, however, may be manifold. Kussmaul's group of symptoms may be observed in other illnesses than diabetes—for example, pernicious anæmia. Moreover, the dyscrasia is not dependent on the appearance of the falsely so-called "acetone reaction" in the urine (red colouration with ferric chloride). These conclusions arrived at by Senator deserve the greatest attention. It would lead us too far to discuss them at all adequately. Our knowledge of the causes of the natural combination of symptoms met with in the coma of diabetes is still in too fluid a state to serve as the basis of further statements.

THE VESTRIES AND THE HOMES OF THE POOR.

WE have received the report of the medical officer of health (Dr. Iliff), addressed to the Newington Vestry on the subject of the "Dwellings of the Outcast Poor of London." He speaks of the improvements that have been effected in his district since 1856 in the construction of new sewers, the suppression of many nuisances, and in the improved scavenging. The question, however, of the dwellings of the poor does not press so hardly at Newington as in many suburbs, not because it possesses the necessary accommodation, but because the class that frequent such tenements do not come to Newington. Still Dr. Iliff thinks that provision must be made for one-room or two-room occupiers at a very low rent, and air, light, water, and cleanliness must be secured, if the evil effects of overcrowding are to be minimised. He is of opinion that if effect were given to the practical suggestions of those who know the defects of the existing laws, many evils at present not illegal would be dealt with if increased powers were obtained. Dr. Iliff's experience at Newington evidently induces him to form a favourable opinion of the work effected by his vestry, since he deprecates the tendency to cry it down. At a recent meeting of the St. Pancras Vestry the communication of the Local Government Board was discussed, when it was pointed out that "in the vestry itself there were persons who were landlords of houses which were anything but creditable in a sanitary point of view." The report of the medical officer of health (Mr. Murphy) was read, and disclosed a horrible picture of the dwellings immediately around Brunswick-square, such as were to be found in Cooper's-buildings, Cattel-place, and in the Colonnade, and this in spite of measures already undertaken for the destruction of property declared unfit for human habitation. It will be seen from the foregoing that the requirements vary in the different districts: that in new and growing suburbs the aim should be to secure suitable dwellings ready to house the "outcast poor." In the older parishes it is the destruction or rebuilding of dilapidated habitations, and the enforcing cleanliness and decency on the occupants, which have to be provided for. The only way to ensure either is for the vestry to keep a tight hand on landlords and speculative builders. The new houses must be amply provided with air, light, and water; whilst in the older, all dilapidations, especially as regards the sanitary arrangements, must be promptly attended to by the landlords, and an adequate supply of water provided for tenant or sets of tenants. But, in order to secure this, vestries must be prepared to act without fear

or favour, and purge themselves of all complicity with those who evade the present laws. At the same time medical officers of health should see that the tenants do not, by their carelessness, ignorance, or wilful neglect, allow the tenements thus provided again to fall into their previous insanitary condition. For both these purposes it seems to us that the Public Health Acts and the Nuisance Removal Acts are amply sufficient if the vestries only resolutely set themselves to work, and second the efforts made by their medical officers to remove many present scandals.

THE LOCALISATION OF CEREBRAL FUNCTION.

AT a meeting of the Royal Society on Jan. 24th Drs. Ferrier and Gerald Yeo communicated a paper upon the effects of lesions of different regions of the cerebral hemispheres. The paper contains a detailed account of experiments conducted upon monkeys, consisting in the removal under anæsthetics of certain limited areas of the cortex, strict antiseptic measures being taken so as to avoid any fallacies arising from secondary inflammation in the vicinity of the injured part. These operations are particularly valuable in that they were conducted on animals high in the scale, so that the inferences drawn from the results are more justly applicable to human cerebral physiology; and they confirm in a very exact manner most of the conclusions previously arrived at by Dr. Ferrier and by neuropathologists. At the meeting Dr. Ferrier described the results obtained, illustrating his remarks by casts and photographs of the injured brains. The regions operated upon were the occipito-angular, temporal, Rolandic, frontal, and hippocampal. It was found that lesions of the occipital lobes and angular gyri caused disturbance of vision, a disturbance only temporary in the case of partial removal of those parts, total blindness with optic nerve atrophy only occurring when the whole of this wide area on both side was completely removed. Unilateral excision of the occipital lobe and angular gyrus induced temporary amblyopia of the opposite eye and homonymous hemianopia of both eyes towards that opposite side. Our readers may remember that last session at the Medico-Chirurgical Society Dr. Sharkey described a brain in which atrophy of this region was associated with atrophy of the optic tract; and the same observer recently argued on clinical and pathological grounds, in a paper at the Ophthalmological Society on Homonymous Hemianopia, in favour of the visual centre being an "extensive expansion of the grey matter in the posterior part of the hemisphere." Similar experiments on the superior temporo-sphenoidal convolution were followed by complete and permanent deafness, other lesions of the temporal lobe producing no change in this sense. The Rolandic region—i.e., the cortical areas around the fissure of Rolando—was again shown to be the centre of motor impulses, lesions in these areas producing motor paralysis without loss of sensation, varying in degree and extent according to the seat and extent of the lesion; secondary degeneration of the pyramidal tracts of the spinal cord followed these lesions. No effects followed lesions of the pre-frontal regions; whilst only temporary paralysis of the lateral movements of the head and eyes was produced by lesions of the post-frontal region, temporary so long as portions of the frontal lobes remained. Lesions of the frontal lobes were followed by descending degeneration, traced through the centre of the foot of the crus cerebri and of corresponding fibres of the internal capsule, but not passing into the anterior pyramids. Perhaps the most remarkable results were those which followed destruction of the hippocampus major and its convolution, and the neighbouring inferior temporo-sphenoidal region, without interference with the crus or the basal ganglia or internal capsule. The precise limitation of these lesions was a matter of difficulty; but Dr. Ferrier's specimens showed well the care which had been exercised to effect the object in view. The result of removal of these portions of brain was to cause complete anæsthesia of the opposite side of the body, the degree of such anæsthesia depending upon the amount of destruction of the hippocampal region. The bearing of this upon Charcot's demonstration that cerebral hemianæsthesia is produced only when the posterior third of the internal capsule is destroyed is interesting, and it serves to harmonise the doctrines of motor and sensory localisation—viz., that of cortical centres. It should also stimulate inquiry into the course taken by fibres arising in the hippocampal region. Hitherto, the internal capsule at its posterior part has been thought to be composed mainly of fibres which pass directly from the peduncle to terminate in the grey matter of the occipital lobes. These researches of Dr. Ferrier suggest that, after all, these fibres are not the path of sensation, for lesions of the occipital lobes produced no anæsthesia; and if (as cannot be doubted) hemianæsthesia does follow lesions of the posterior part of the internal capsule, and also of the hippocampal region, it must be left to histologists to determine a nexus between the two.

TWO-EYED RIFLE SHOOTING.

A SOMEWHAT lively discussion has been carried on in the contemporary press on this subject. By some it is maintained that in ordinary shooting the right eye is alone in use, by others that the two eyes are used together, and there are still others who seem to hold that though the right eye is chiefly used when the aim is taken, yet that the left eye aids in defining the target and supplying information of the position of surrounding objects. Those who consider that one eye alone is used endeavour to prove their case thus: Hold, they say, a ruler before the right eye in such a position that when the left eye is closed it covers the object; now shut the right eye, and see in which direction the ruler points; it will be found to be many inches, or feet, or yards away to the right, according to the distance of the object. It is therefore obvious, so the argument runs, that a man fixes the object, bird, or target, as the case may be, with his right eye, and neglects the image formed on his left retina altogether. The difference of opinion upon the subject depends, there can be little doubt, on the different practice of aiming adopted by different sportsmen. If a man shoots slowly, accommodates his eye to the sight or sights on the barrel of his gun, and then relaxes his accommodation for the distant object, and still more if he alternately exerts and relaxes his accommodation, for which there is ample time in target or any other deliberate shooting, then undoubtedly he uses one eye, and, of course, usually the right eye, alone. But the act of accommodation is a slow process, it requires nearly, if not quite, a second, and in ordinary bird-fowling the sportsman has no time for this. The more practised he is the less he attends to his barrel and his sights. He first fixes the object with both eyes, and then points the barrel at the precise elevation and in the direction which long experience has taught him will be effective when the gun is discharged. He adapts his eyes for the distant object, and the rest is mechanical. Corroborative evidence that this view is correct is afforded by the fact that the bowler at cricket never closes one eye or troubles himself about any line. He simply fixes the wicket or the precise spot in front of the wicket on which he desires to pitch the ball, and leaves the rest to the coördinating nervous centres. The billiard player, again, in the vast majority of cases uses both eyes, and fixes alternately the near and the distant ball with both eyes. We therefore maintain that if a man uses his sights and attends to his

barrel as well as to the object, he employs one eye only, neglecting the impressions derived from the other. If, however, as is customary with experienced sportsmen, he takes no thought of his gun and fixes the distant object, then, undoubtedly, unless he has some defect of vision, he uses both his eyes, the visual lines of which at thirty yards are almost parallel to each other.

DR. KOCH'S PROGRAMME.

THE following is the programme which Dr. Koch intends to pursue in his research on the nature of cholera, as given in the letter to the German Government announcing his arrival and reception at Calcutta on December 11th. He and his colleagues propose in the first place to submit to microscopical examination as much material as possible, in order to follow up the discovery made in Egypt of bacilli in the intestinal mucous membrane, and endeavours will be made to determine the specific characters of this bacillus, so as to arrive at some basis of distinction between it and other micro-organisms of like size and form. Researches will be made upon cholera in animals, and the experiments of feeding animals with choleraic matters will be repeated, employing new methods, such as the direct injection of the material into the alimentary canal. They will endeavour to obtain pure "cultures" of the bacillus, and use these cultures in the infection experiments. The biological characters of the bacillus will be studied, especially as to spore-formation, duration of life, behaviour in various nutrient media, and at different temperatures. Then experiments will be made to prevent or destroy the growth of the bacilli, disinfection in fact. It is proposed also to examine the soil, water, and air in relation to the choleraic virus, so as to determine, if possible, whether in regions where the disease is endemic it may occur independently of the human body—for instance, by processes of decomposition in the soil. A full inquiry will also be made into the conditions under which cholera occurs in India, such as the possible relation of endemic cholera to particular circumstances of the inhabitants and their surroundings; outbreaks of cholera in prisons, among troops, and on board ship; the prevailing conditions of endemic regions; and the mode in which cholera is conveyed beyond the limits of these places, especial attention being directed to the spread of the disease by religious ceremonies, pilgrimages, and traffic on sea and land. They will also report upon the regulations in force in India against the spread of cholera in prisons and among troops, and the sanitary measures which have been followed by so marked a decrease in the mortality from cholera in certain cities, as Madras, Pondichery, Guntur, and Calcutta. It will thus be seen that the Commissioners hope to combine with their new researches the knowledge gained by so many earnest workers in India, and we feel sure that every facility will be given them by the Government of India in their arduous undertaking.

EARLY RISING.

THE proper time to rise is when sleep, properly so-called, ends. *Dozing* is not admissible from any reasonable or health point of view. The brain falls into the state we call sleep, and the other organs of the body follow it. True sleep is the aggregate of sleeps. In other words, sleep, which must be a natural function—i.e., physiological instead of pathological, or induced by disease or drugs—is a state which consists in the sleeping or *rest* of all the several parts of the organism. Sometimes one and at other times another part of the body as a whole may be the least fatigued and so the first to awake, or the most exhausted, and therefore the most difficult to arouse. The secret of good sleep is—the physiological conditions of *rest* being established—to so work and weary the several parts of the organism as to give them a proportionally equal need of rest at the same moment. The cerebrum or mind-organ, the sense organs, the muscular system, and the viscera should be all ready to sleep together, and, so far as may be possible, they should be equally tired. To wake early and feel ready to rise, this fair and equal start of the sleepers should be secured; and the wise self-manager should not allow a drowsy feeling of the consciousness or weary senses, or an exhausted muscular system, to beguile him into the folly of going to sleep again when once his consciousness has been aroused. After a very few days of self-discipline the man who resolves not to "doze"—that is, to allow some still sleepy part of his body to keep him in bed after his brain has once awakened—will find himself, without knowing how, an "early riser."

SANITARY CONDITION OF CAMBRIDGE.

CONSIDERABLE indignation was expressed at the last meeting of the Cambridge Commissioners at the statements which had appeared in the local press with respect to the insanitary condition of the town, and it was truly remarked, that if "the idea got about that Cambridge was an unhealthy area, it would have a very prejudicial effect on the entry of members at the University, and consequently on the trade of the town." Comfort was, therefore, sought in the medical officer's report for the quarter ending Dec. 31st, 1883, which showed that, excluding thirteen deaths not belonging to the district, the death-rate from all causes was 21·3 per 1000, whilst the zymotic death-rate was 4·7, or, if croup be included, which by many is considered synonymous with diphtheria, 5·4 per 1000. Of all the deaths, nearly one-half were among children under five years of age! The Mayor then expressed an opinion that this statement furnished an "emphatic" denial to the assertion made in the local newspapers, whilst a Mr. Death remarked how very improper it was for editors to make any statements likely to injure the trade of the town. We must be pardoned, however, if we cannot view matters with the same degree of satisfaction. It is very discreditable for a provincial town like Cambridge, where the conditions of life are so generally favourable, to have a death-rate of 21 per 1000, and the large number of deaths from an epidemic of measles proves the truth of a recent remark of ours with regard to the town, that epidemic disease, if introduced, would show remarkable fatality. Neither is it a matter for self-congratulation that, whilst large towns which have much greater difficulties to contend with have reduced their death-rates, Cambridge should show an exceptional increase. Moreover, there is something startling in the complacency which accepts as satisfactory the statement that nearly half the total number of deaths in Cambridge last quarter occurred among children under five years! If anything could condemn the sanitary arrangements at Cambridge, it would be that one fact, for it must be remembered that at Cambridge few of those circumstances exist which may be offered as an excuse in our large manufacturing centres for a high infantile mortality. Parents not imbued with Malthusian principles, about to send their sons to the university, should procure the *Cambridge Chronicle* for Jan. 25th, and read for themselves the report of the meeting of the Improvement Commissioners. They will then form their own opinion as to the health of the town, and learn what improvements are likely to be carried into effect in the future. Fortunately the present epidemic was one of measles, and children were its chief victims, over whom no fuss it seems can be expected! Had it been typhoid, we fancy the complacency of the Commissioners at their last meeting would have been rudely shocked. Before that event occurs, let us hope they will have obtained the Act of Parliament over which they have been squabbling so many

years, and will have put their drainage in order; for if an epidemic finds them unprepared, it will again inflict a catastrophe as severe as that of 1874, whilst they will have to deal with a public that is not so tolerant of sanitary shortcomings as it was ten years ago.

SCARLATINA AND DIPHTHERIA.

THERE has of recent years been a growing belief that although typical cases of scarlatina and of diphtheria cannot be mistaken one for the other, yet that there lies between these two extremes a group of cases exhibiting nearly every phase between well-marked diphtheria on the one hand, and well-marked scarlatina on the other. Dr. Francis Bond has been one of the most prominent amongst observers who have contended that there exists between the two diseases a more or less intimate family relationship as regards origin, pathology, and sanitary importance; and in his last annual report on the Gloucestershire Combined Sanitary District he reverts to the subject in connexion with an outbreak which consisted largely of this hybrid affection, the precise nature of which it was by no means easy to identify, and which attacked between forty and fifty children at Chaxhill, in the parish of Westbury-on-Severn. The cases in question were evidently much more nearly related to diphtheria than to scarlatina; none of the attacks appear to have exhibited an eruption; redness of the throat, with, in some cases, a whitish spot or two, and at times a suspicious sort of membrane, formed the principal symptoms; death occurred very suddenly without apparent serious illness; and the fatal cases were registered as croup, diphtheritic croup, and diphtheria. But it is admitted on all hands that the cases were by no means characteristic of genuine diphtheria. It appears that scarlatina was prevalent in the neighbourhood, and that several cases of a precisely similar kind occurred about the same time on the opposite side of the Severn, where an ill-developed form of scarlatina, in which marked throat mischief was the main symptom, was very prevalent. The disease did not appear to have any special tendency to spread, it seemed rather to have simultaneously affected a large number of children who were probably exposed to the same morbific influence. The nature of this influence was not detected; it was certainly not any obvious sanitary defect; but the children had all been much exposed during a wet and cold season. The outbreak recorded is less obscure from the point of view we have referred to than many others have been, but it affords another instance which may be regarded as favourable to the view that scarlatina and diphtheria have a common origin, and that the development of symptoms resembling either one or other of the two diseases is probably due to certain local or personal influences which for the present are involved in obscurity.

CONSULTEES AND "CASES."

IN the current number of a society journal attention is drawn to a case in which a consultee is alleged to have put off one appointment to carry out another, the latter being in aid of a patient of higher rank than the former. Our cynical contemporary wishes to know whether doctors attend to their patients in the order of social precedence? We can have no hesitation in replying strongly in the negative; but obviously *urgency* must determine the physician or surgeon in his choice of duties. A hurried summons to a new case is presumably a more pressing business than a consultation which has been fixed days before. We can easily understand that the patient and friends, and perhaps the medical practitioner put off, may feel aggrieved. It is only natural that they should do so; but only consultees know how difficult it is to please everybody.

MR. MUNDELLA IN SCOTLAND.

WERE we in search of an example of duty to men in high places, of enthusiasm in work, and of encouragement to workers, it would be found in the exertions of the Vice-President of the Council on Education during his recent visit to Glasgow and Edinburgh, ostensibly for the purpose of opening several elementary schools. We may all feel thankful that the cause of education is in the hands of one so much in earnest, and especially the profession may rest satisfied that he who can raise the pulse of Scotland on her pet subject will give to medical training a chance of fuller development and thoroughness, and that in no narrow spirit. In his many able speeches Mr. Mundella has put his finger upon points of weakness as well as of strength, and throughout has proved himself well acquainted with all the phases of thought on the many questions touching upon educational reform. With regard to over-pressure, for example, his remarks may well be remembered by school boards throughout the country. He does not deny the existence of the evil, nor seek to minimise it, but shows that the system of farming the schools to teachers who are paid by results, and so compelled to cram for a high percentage of passes, was accountable for the mischief, as well as the deficient teaching staff employed in so many schools. He recognises, too, that the pupil-teachers, and especially the females, are themselves victims of over-pressure to an extent even worse than the children. Another point favourably commented upon by Mr. Mundella was the improved hygiene of the newer board schools. He is very sensible of the vast importance, alike to teachers and taught, of due ventilation, abundant light, and thorough regard to general health conditions. While dealing with the health problem it would have been well to encourage still further the provision of gymnasia. The want of means for technical and science-teaching in Scotch schools was much commented upon, and it does seem singular that in Edinburgh, whose industry is education, no school should be provided with a laboratory. Even in the science and art classes the difficulties as regards accommodation are almost insurmountable, but in future more encouragement to them may be expected from head-quarters, and the excellent tone of Mr. Mundella's remarks will not be lost on those who would have our children spoiled by smatterings of science jargon.

OBSTETRIC DEATH AND UNQUALIFIED PRACTICE IN MANCHESTER.

IT is very lamentable to think that lying-in women are the only portion of Her Majesty's subjects who are not supposed to need qualified medical attendance. A sad death from post-partum hæmorrhage has occurred in Manchester, which, in the opinion of Mr. Walters of St. Mary's Hospital, would not have occurred if the poor woman had been attended by a properly qualified practitioner. The person who did attend, named Hoyle, said that he attended for "one Dr. Parkes." It is singular that this gentleman was not called; the more so as this evil of unqualified assistants covered by qualified practitioners seems rampant in Manchester, if we may take the opinion of the jury and the coroner. The coroner actually said that cases had come before him in which a duly qualified man had thirteen or fourteen surgeries open, with an unqualified man in charge of each of them. The jury very properly attached to their verdict the expression of a hope that unqualified men would soon be prevented from practising as surgeons. Would it be too much to expect, meantime, from the Medical Council an inquiry into the state of things at Manchester described by the coroner? We commend this case and the statement of the coroner to the attention of Dr. T. King Chambers.

FOOT-AND-MOUTH DISEASE.

THE Cattle Diseases Committee of the Central Chamber of Agriculture have just drawn up a report on the subject of foot-and-mouth disease. The committee are strongly of opinion that the landing of live animals from infected countries should be peremptorily proscribed. In the coming Parliamentary session pressure will be put upon Her Majesty's Government to give effect to the resolution passed last year by the House of Commons condemning the unrestricted importation of cattle to this country. Experience has fully shown that the slaughtering of animals at the ports of arrival has signally failed to prevent the spread of the disease. Nor is this surprising when we consider the subtlety of the poison and the many possible paths for its dissemination. In the autumn of last year we drew attention to the dangers attending the consumption of milk and flesh of animals stricken with epizootic aphtha (see THE LANCET, October 27th, 1883). Apart however, from its immediate bearing upon the question of public health, the aforesaid committee have pointed out how impolitic it is for the Government to persist in withholding the necessary Order in Council by which alone it seems there is any reasonable hope of freeing the country from the plague which plays such havoc amongst our herds and flocks. Under the existing regulations the farmer is practically paralysed in his efforts to raise stock either for the dairy or the market. Now the foreign live animals from unhealthy countries only represent "6 per cent. of the meat of all descriptions which is annually consumed in the United Kingdom," so that it seems to be pushing the principle of free trade too far when, in order to secure the full benefit to be derived from the indiscriminate landing of foreign cattle, our home supply must be limited to the extent that it has been during the last three years. There is one drawback, however, to the resolution of the Committee, "that every encouragement should be given to the development of a dead-meat trade with foreign countries," and that is, the consignment of diseased carcases would be greatly increased, since there would be next to no control over their importation. It is certainly a fact that when foot-and-mouth disease is far advanced the meat shows evidence of malnutrition by its pallor, flabbiness, and undue moisture; but short of this, it is well nigh impossible to detect with certainty the results of infection. But against the danger to health from this source the consequences of the continued high price of food must be weighed. Moreover, if the landing of animals from infected countries be forbidden, those countries would soon adopt such measures as are calculated to stamp out a preventable disease.

THE KENNINGTON MURDER.

IN our number of Jan. 19th we drew attention to the injustice of the verdict delivered in this case, and urged the necessity of a medical commission to inquire into the mental and moral history of the condemned man. It is with great satisfaction that we are able to announce that Drs. Orange and Gover came to the same conclusion we had arrived at—viz., that Baldwin was the victim of impulsive homicidal mania. In addition to the fact that there was no adequate conscious motive to the crime, it is now known that the convict had been an epileptic from his youth. This supplies the link in the chain of evidence which we contended would be found on competent search into and careful consideration of the man's antecedents. There is no greater truism than that an ordinary fit of epilepsy may be supplanted by "temporary impairment of consciousness, accompanied by ideas approaching in character to such as occur in delirium, but unaccompanied by any manifest derangement of motor function." The case furnishes another instance of the desirability of every prisoner indicted for the offence of wilful murder being medically examined, and the question of his moral responsibility thoroughly sifted, before the strictly legal questions are determined. It is high time that the law relating to criminal lunatics was made consonant with scientific knowledge. Our legislators strain at nats and swallow camels, because, forsooth, they rest contented with idle dogmas relating to abstract right and wrong, whilst they remain regardless of the plain teachings of humanity and common sense, that "the proper study of mankind is man." Baldwin's fit of intoxication was, without doubt, the proximate cause of his apparently causeless crime, but then his periodic attacks of drunkenness were more the consequence than the cause of his insanity. The final issue of this painful and deplorable incident, condemning an irresponsible lunatic as a *wilful* murderer, has more than repaid us for our advocacy of the canons of justice.

THE SUPERVISION OF PRIVATE BUILDING OPERATIONS.

IN a paper read before the Liverpool Architectural Society Mr. Ellice-Clark reviews the subject of the supervision, by bye-law or otherwise, of private buildings during their erection. The State has long since decided that such supervision is necessary in the interests of health, of stability, and for the purposes of the prevention of fire; and hence it now only becomes a question as to how the supervision may best be carried out. Apart from the metropolis the regulations are almost invariably drawn up as bye-laws, a few districts only having resorted to private Acts of Parliament for this purpose, and it rests with the several authorities concerned either to make the regulations or to go without. Formerly the bye-laws proposed were, almost as a matter of course, at once sanctioned by a Secretary of State, and thus it has come to pass that clauses dealing with precisely the same subjects in adjoining districts differ to a degree that is almost comical. Thus, Mr. Ellice-Clark has examined 170 sets of building bye-laws in Lancashire and Cheshire, and he finds that no two of them are alike. Even as regards matters as to which no diversity could have been anticipated, owing to special local circumstances, the several codes differ immensely. How, for example, can it be explained that in Oldham the statutory minimum thickness of a wall is nine inches, whereas in Manchester it is only half that thickness? The minimum thickness, from a health point of view alone, should surely be the same where the climate and other local conditions are so similar. This diversity of law constitutes one great source of difficulty to the architect and to the builder, and it tends to bring the regulations into discredit. It is true that the issue of a model code of bye-laws by the Local Government Board is tending more and more as time lapses to correct this initial error; but even these bye-laws largely fail, according to Mr. Ellice-Clark, because of the absence of any proper body to administer them. He does not appear to object to their stringency, but he fails to see why some of them should apply to all districts alike, whether urban or sparsely populated; and when he finds that an ex-butcher, who happens also to be a nuisance inspector, is the officer appointed to see that the clauses are complied with, and that such men often serve a body of farmers and others, who, like themselves, are ignorant of the technical details necessary to a comprehension of what they are dealing with, he certainly exposes a matter that calls for amendment. One of the remedies proposed is that certain building requirements, which are necessary in all parts of the kingdom, whether urban or rural, should be embodied in an Act of Parliament and be universally applied, and that in addition to these, all matters which may be thought to need variety according to local requirements should be dealt

with by means of bye-laws properly supervised and enforced. The points which Mr. Ellice-Clark would include in a general Act so well cover all the essential requirements for health purposes that we should be glad to see them adopted throughout the country. It is gratifying to note that, as a result of his experience as surveyor and engineer to a large urban district, he has come to the conclusion that the public interests cannot be properly protected, unless all such laws and regulations are specific, and leave but little to the discretion either of local authorities or of officials.

COUNTY CORONERS AND THE MODE OF ELECTION.

ON the 16th ult. an illustration was afforded of the old and antiquated method of electing a coroner for South-West Lancashire. Owing to the lamented death of Mr. Barker, caused by a runaway tram engine at Pemberton, near Wigan, where he had been holding an inquest, a vacancy occurred. Mr. Barker, who was much respected as an able and conscientious coroner in his district, had only held office for twelve months, although he had been deputy for a number of years previously. The coroner is elected by freeholders in the West Derby Hundred, and at first there were five candidates for the vacant office, all being members of the legal profession (one barrister and four solicitors). When, however, it was found that there was to be only one polling booth, and that at Ormskirk, three of the candidates retired with an expression that they hoped the powers that be would take cognisance of this mode of appointing such an officer. The two candidates left to do battle were Mr. Brighouse, solicitor, of Ormskirk, and Mr. Riley, solicitor, of St. Helens, and the contest became as much as anything a political one. Mr. Brighouse, however, from the commencement made a start which looked like a determination to win. He held meetings and addressed freeholders in all parts of the West Derby Hundred, and appointed agents in each district. The result, so far as he is concerned, has justified the means, he having been returned over his opponent by a large majority. There are over 6000 electors, and nearly 3000 of this number polled. Passes for travelling and other favours were used to induce people to go and record their votes, and the cost to the winning man will probably not be less than £2000. The office is worth between £800 and £900 per annum, which covers travelling expenses. We regret exceedingly that there was no local medical man of sufficient energy and popularity to have won this appointment, and we hope that the present cumbrous and objectionable mode of election to the important post of coroner may ere long be materially amended.

WOOLLEN UNDERCLOTHING.

AMONG the many means by which we seek to guard ourselves from the effects of chill there is one which hardly, even now, receives sufficient attention—the use of woollen underclothing. The majority of persons of the male sex do, indeed, show their appreciation of its wholesome qualities; but there remains a considerable moiety of these, and a far greater number of women and children, who prefer an undersuit of smooth but relatively meagre linen. Yet the superior advantages of wearing wool next the skin are easily apparent on reflection. They do not depend merely on its greater warmth and closeness of application. It is further capable, according to its texture and in virtue of its composition, of better adaptation in respect of temperature to the needs of various climates and the changes of seasons than any other dress material. Moreover, whether it be fine or rough, dense or light, woollen clothing, it is evident, exhibits a special faculty for absorbing and distributing moisture. It is this property especially which renders it the natural next covering of the constantly perspiring skin. If one be engaged, for example, in active exercise of limb, a linen fabric will absorb what products of transudation it can till it is wet, but will leave much moisture unabsorbed upon the clammy surface, whereas a flannel, from its more spongy nature, will rest upon a skin which it has nearly dried, and be but damp itself. It is obvious, then, that in the event of an after-chill, and this occurs in summer as in winter, the body is, in the latter case, most favourably disposed to resist it. Flannel is not less cleanly than linen, though it may appear less white; and if the wearer bathe daily, it is surprising how long it will retain its purity. The disadvantage of skin irritation to which it sometimes gives rise is usually associated with coarseness of quality or freshness of manufacture, and is with nearly all who have experienced it a merely transient condition. Women, as well as men, we repeat, but above all children and the aged, who are alike particularly apt to take cold, should certainly adopt a woollen material for their customary undergarment. It is easily possible to adjust the texture to the season, so that it shall be warm enough in winter and not too warm in summer.

LIMED COAL AS A GAS PURIFIER.

AT the first meeting (Jan. 24th) of the Chemical Section of the Society of Arts, Professor Wanklyn read a paper on "The Manufacture of Gas from Limed Coal," a process which seems to promise to relieve the London atmosphere of the sulphur compounds with which the gas companies now fill our houses, theatres, &c., adding moreover to the London fog its offensive quality. It would be impossible to exaggerate the deadly influences exerted on the public health by the various sulphur compounds now mixed with coal gas in the large proportion of twenty-five to thirty grains in the 100 cubic feet, not to name the injury they cause to gildings, russia bindings, and such-like luxuries. The process recommended by Professor Wanklyn (Cooper's patent) reduces, he says, the amount of sulphur compounds to three grains in the 100 cubic feet. Mr. R. T. Spice, the well-known gas engineer, in a paper in the *Gas Journal* of the 22nd ult., confirms this statement by his experience during the last two months of the working of the process under his direction and that of Mr. A. Dougall at the Tunbridge Wells gasworks. Professor Wanklyn further states that the Cooper process results in a pecuniary gain of one shilling to each ton of coal carbonised by the increase in the yield of ammonia and tar and by the abolition of the lime purifiers. The coke is said not to suffer by the process, and is specially adapted for domestic consumption by the absence of sulphur fumes. It is as guardians of the public health that we call attention to these statements by Professor Wanklyn. The gas companies may have another lease of life and defy the electric light if this Cooper process realises in their hands the advantages it has done at Tunbridge Wells.

WESTON'S WALK.

DR. R. MARTIN, of Ardwick, Manchester, writes:—Mr. Weston completed his 3000th mile on Tuesday night, in the St. James's Hall, Manchester. He afterwards delivered a spirited and humorous address to a large audience, on whom he urged the importance of an abundance of out-door exercise, as well as the advantages to be derived from nutritious food and abstinence from alcohol. Mr. Weston was afterwards medically examined; his temperature, pulse, and tongue were found to be normal. His general condition was said to be wonderful, considering that he has walked fifty miles every day, except Sundays, for the last six weeks. He seems confident that he will be able to complete his task within the allotted time.

SANITARY IMPROVEMENTS IN LIVERPOOL.

AN inquiry has been held in Liverpool by Mr. Harrison, C.E., one of the inspectors of the Local Government Board, with regard to the application of the Corporation for leave to extend its borrowing powers for the purpose of dealing with the insanitary condition of houses of the poorer class in the district. Mr. Forwood, the medical officer of health, gave valuable and striking evidence. He first of all described what had hitherto been effected. Under the Act of 1864 there had been 635 houses dealt with, at a cost of £135 for each house, whilst under the improved Act of 1882 the Corporation had bought 135 houses for £8000, or an average cost of £60 per house. To give the inspector some idea of the extent of work still required in Liverpool, he stated that there were no fewer than 2231 existing courts, containing 14,472 houses, of which 12,843 were occupied with a population of 5·86 per house, whilst no amount of sanitary inspection could make many of these places fit to live in. In some of the courts daylight is hardly visible. Last year, in ten of them, containing ninety houses, the death-rate amounted to nearly 60 per 1000, the average death-rate of the city being 26. The estimated population of these courts is reckoned at 1250 per acre. The plan proposed by the Corporation is to ask for powers to extend the repayment of the loan over fifty years instead of thirty under the Sanitary Acts. As the contemplated improvements are for the permanent benefit of the inhabitants of the town, we think this request to extend the period of repayment might be granted by the Local Government Board. It is a matter of consequence to render the working of the Dwelling House Acts as easy as possible for the ratepayers.

At a meeting of the Northern Hospital, held at the same time in Liverpool, it was pointed out that the present position of the hospital was a source of anxiety to the Committee. They were much cramped for room, both in the wards and the domestic offices, and increasing necessity arose for the construction of a new hospital. Dealing with the question of the payment of small sums by patients, it was proposed to give a circular to all such as were thought able to pay, setting forth the claims of the hospital and their duty to contribute something towards its support. Mr. Whitely, M.P., hoped that the Corporation would be able to support them with a grant. He thought the hospitals of the country should receive some such support—in fact, they might be dealt with as industrial schools were. The exertions of the medical staff were spoken of in the warmest terms, and special allusion was made to the admirable working of the Ambulance Service.

IMPOSTURE BY A WOMAN.

THERE is nothing whatsoever extraordinary in the case of imposture lately discovered, or rather exposed by the confession of the malingerer just before her death, at Whitstable. The young woman perpetrated a vulgar and clumsy fraud, discoloured her face with burnt cork, and lay in bed for years, subsisting not uncomfortably on the delicacies silly people brought her. The only marvellous feature in the case is the exceeding folly of the dupes of a particularly poor artifice. It was at first reported that even medical men had been deceived. This cannot have been the fact—first, because no member of the profession could possibly have been taken in by so gross a fraud; and, secondly, because it was the policy of the family to keep all "doctors" at a distance. Of course, the friends of the deceased affect ignorance of the trick practised on credulity, but the pretence is a very sorry one, and will not influence any sensible person. The only remark it occurs to us to make on the matter is that it would conduce to the public welfare if medical practitioners were a little more energetic than they sometimes show themselves in investigating the cases of these bedridden females. With very rare exceptions, indeed, they are either instances of hysterical inertia bordering on insanity, when they ought to be sent into asylums where they would be properly treated, or they are cases of imposture. It would be a very wholesome practice to "certify" such persons of unsound mind, and so place them directly under medical control.

SIR SPENCER WELLS.

ON the 26th ult. Sir Spencer Wells visited the Clinical Hospital of Naples, and was presented to the medical students by Professors Schrön and d'Antona. The former welcomed the illustrious surgeon in cordial and suitable words, calling him the father of ovariotomy, and expressing the sincere hope that so valuable a life might long be spared for the benefit of science and humanity. Sir Spencer Wells replied in Italian, saying that he was highly gratified by having witnessed two operations performed by Professor d'Antona, the skill of which could not have been exceeded in any country in Europe or America. Signor Natale Sisca, a student, welcomed Sir Spencer in English in the name of his fellow-students, and requested him to convey to their English *confrères* their hearty greetings.

PRODUCTION OF ANÆSTHESIA.

AS the result of his researches on man and animals, M. Paul Bert has announced, at a recent meeting of the Académie des Sciences, that an atmosphere made by the admixture of eight grammes of chloroform with a hundred litres of air is the most convenient for inhalation with a view to the production of anæsthesia. Thus diluted, its administration is said to be not disagreeable, and to be unattended with struggling and suffocative sensations. Complete insensibility is produced in six to eight minutes, and operations may be performed about the face without continuing the administration, so that the anæsthesia does not rapidly disappear. The results of Paul Bert were long ago anticipated by the practice of English administrators of chloroform. Both Dr. Snow and Mr. Clover used to employ a mixture of about 4 per cent. chloroform vapour in air.

THE OFFICIAL CHOLERA REPORTS.

THREE somewhat voluminous reports have now been issued as Parliamentary papers in connexion with the late epidemic of cholera in Egypt. Two of them, covering nearly 160 pages, embody all the correspondence which has taken place between the Foreign Office and the several representatives of the British Government in Egypt, together with enclosures from vice-consuls, local officials, and various medical men as to the causes of the outbreak; and the third contains the report of Surgeon-General Hunter in its final form. All three can be obtained at a trifling cost at Messrs. Hansards', 13, Great Queen-street, W.C., and their perusal will materially facilitate the purposes of the debate which will take place at the next meeting of the Epidemiological Society. We reserve our comments on the documents until next week.

"THE ASCLEPIAD."

UNDER the title of "The Asclepiad," Dr. B. W. Richardson published, in 1861, a volume of clinical essays, which seemed to have been well received. It is his intention now to publish a similar volume annually. The work will appear in quarterly parts. The contents of the first number are all from the pen of Dr. Richardson himself, and we understand that this will continue to be the case throughout the series. Morphia Habitués; the Bead Inhaler; a Practical Clinical Note-Book; Harvey after

Death; Discovery of a Method of an Anatomical Injection of the Bloodvessels through the Cerebro-spinal Cavity; on the Maintenance of Life in a Factitious Atmosphere; Felicity as a Sanitary Research; Contemporary Practice and Literature, are the titles of the contents. All the articles are interesting to read, but that on Felicity strikes us as, perhaps, the most original, and certainly the most characteristic.

AN ABERDEEN UNIVERSITY CLUB IN LONDON.

AT a large and enthusiastic meeting of Aberdeen University men, held at the Inns of Court Hotel, Holborn, on Wednesday, Jan. 23rd, and presided over by Sir Andrew Clark, Bart., it was unanimously resolved that an Aberdeen University Club be formed in London. It was intimated that the Duke of Richmond and Gordon, Chancellor of the University, had consented to become President, and that the Lord Rector (Alex. Bain, Esq., LL.D.), Sir Andrew Clark, Dr. J. Matthews Duncan, and John Farley Leith, Esq., Q.C., had consented to be Vice-Presidents. A Provisional Council was appointed, and it is expected that the first meeting of the Club will be held in May. Dr. R. W. Burnet and Mr. R. M. Routledge were elected honorary secretaries, and all gentlemen desirous of joining the Club are requested to communicate with them.

ST. JOHN AMBULANCE ASSOCIATION.

THE St. John of Jerusalem Association has recently organised a complete ambulance corps with head-quarters at St. John's-gate, Clerkenwell. The corps is in working order, but its existence does not seem to be so widely known as it ought to be. We understand that the subcommittee, who have the direction and management of the corps, invite inspection and criticism of their work. There appears to be nothing which the Ambulance will not undertake. If, for instance, a man broke his leg on Hampstead-heath and wished to be taken back to Wandsworth, the corps would do it *secundum artem* for a trifling charge. We are glad to see that the Association has the honorary services of Mr. Edmund Owen, F.R.C.S., as consulting surgeon.

FOOT-AND-MOUTH DISEASE IN THE HUMAN SUBJECT.

THREE families in the districts of Ballyvoile and Kilmacthomas are stated to be suffering from foot-and-mouth disease, the symptoms including profuse discharge of saliva, together with soreness of the nose, lips, and tongue. One of the most marked symptoms in the cow is a cessation in the natural flow of milk, and, considering the extent to which cattle suffer from the affection in this country, this circumstance is probably one reason why the disease is so rarely communicated to the human subject.

THE WIDE SENSORY NEUROSIS.

M. PITRES continues to contribute to the *Journal de Médecine de Bordeaux* many interesting cases of vaso-motor and secretory affections which may come on at the *début* or in the course of progressive locomotor ataxy. In one case he describes attacks of vomiting (gastrorrhée tabétique), unaccompanied with the pain which usually attends gastric crises.

PRESCRIBING DRUGGISTS.

THE extent to which druggists affect to take in hand the treatment of disease may be gathered from one page of the *Pharmaceutical Journal*, in which no less than eight businesses are described as for sale which purport to be not only dispensing, but "prescribing businesses."

THE THIRTEENTH CRANIAL NERVE.

REGARDED physiologically, the chorda tympani hardly seems to be a branch of the facial nerve. Dr. Sapolini of Milan has been working at the anatomy of the chorda tympani, and comes to the conclusion that it must be regarded as a nerve *sui generis*. He believes it contains motor and sensory fibres. Its deep origin is placed about the posterior end of the floor of the fourth ventricle, whence it traverses the floor of this ventricle in a forward direction. It leaves the surface of the pons Varolii quite close to the auditory nerve, with which it exchanges many filaments. The nerve, once at liberty, is composed of two filaments and is embraced by the seventh and eighth nerves, with which it pursues its course through the internal auditory meatus and the geniculate ganglion. The rest of its course, under the name of the chorda tympani, is well known.

MALE NURSING.

THE recent appointment of five male nurses at the Kensington Infirmary is to some extent a novelty, and has hitherto worked efficiently. These male attendants are required to supervise and nurse the chronic and aged inmates, especially those cases which necessitate frequent lifting and changing of bed-linen. Refractory and venereal cases, so often concomitant, are also placed under male nurses.

IN our annotation on the 19th ult. respecting the death of Mr. Mathias, F.R.C.S., of Southport, we surmised, in the absence of the positive knowledge to be derived from an analysis of the remainder of the mixture and of the contents of the stomach, that the fatality was due to asthenic pneumonia. The report of the analysis, conducted by Dr. Stevenson, of Guy's Hospital, has now been published in the *Cambrian News*. It supports the view we took of the case. Nothing was found in the matters submitted to examination and analysis to account for the death of the deceased.

AN excellent lecture on the Dangers of Defective Drainage has been delivered at the Birmingham and Midland Institute by Dr. Alfred Hill. It is now printed, together with a series of diagrams illustrating the points referred to. Several of these diagrams are borrowed from well-known works, and both these and others, such as one showing the sanitary arrangements at Bagshot-park which led to the illness of the Duchess of Connaught, are of permanent interest to all concerned either in health administration or the maintenance of wholesome dwellings.

THOSE interested in all the phases of development of the question of treatment by transfusion will find in the Bulletins de la Société Médicale des Hôpitaux de Paris, 4th series, 1st year, an account of three cases of Bright's disease treated by transfusion, chiefly for "uræmic" symptoms, by M. Dieulafoy. The conclusions to be drawn from these observations are too indefinite to warrant further discussion in our columns.

AT the last *séance* of the Society for the Propagation of Cremation, the President, M. Koechlin-Schwartz, announced that the police authorities had definitely decided that the cremation *des débris d'hôpitaux* should take place in one of the Parisian cemeteries.

THE total expenditure for the medical relief of suffering in Paris for the year 1884 is estimated at 41,586,000 francs, about £1,663,000.

IT is curious to observe, says *La France Médicale* of Jan. 26th, the coincidence in the subjects which excite discussion at the French and English learned Societies. At the last meeting of the Clinical Society and of the Société de Chirurgie the surgical treatment of empyemata excited prolonged debate. Resection of the ribs, called in France the operation of Estlander, meets with varying support from different surgeons.

AN important prosecution under the Habitual Drunkards Act, 1879, took place on Wednesday, Jan. 23rd, at the Margate Petty Sessions. The proceedings were instituted at the instance of the Home Office against the landlord of a public-house for knowingly supplying stimulants to a patient from the Tower House Retreat at Westgate-on-Sea, having previously been warned against doing so.

IN Colonel Sir Francis Bolton's report on the quality of the water supplied by the several metropolitan water companies during the month of December, 1883, it is stated that the Thames water, which in the two previous months had exhibited an increased amount of organic matter, suffered further deterioration in that month The water drawn from the Lea also underwent a similar deterioration.

THE decision of the judges respecting the essays on the subject of Cancer, presented in accordance with an announcement of the Warren Prize made in March, 1882, has been announced. Six essays were presented, but none were deemed worthy of the prize.

PROF. ARTHUR GAMGEE has announced his intention of resigning the Deanship of the Medical Department of Owens College at the close of the present academical session.

WE regret to learn the sudden death of M. Augustin Fabre, Professor of Clinical Medicine in the School of Medicine, Marseilles.

LETTSOMIAN LECTURES
ON
MODERN OPERATIONS FOR CATARACT.

LECTURE II.

THE division of the general subject to which Mr. Brudenell Carter proposed to direct attention in the second lecture was that of the so-called "maturity" or "immaturity" of cataracts; and the progress which had been made in the surgical treatment of those which must be included under the latter denomination. The word "maturity" as applied to cataract must be understood to mean that the degeneration of the lens tissue had extended to the most superficial layers, those immediately adjacent to the investing capsule; and in like manner the word "immaturity" conveys that these superficial layers are not yet involved in the degenerative process, and that they retain some of their original characters, notably their transparency, their viscidity and their adhesion to the capsule, either unimpaired or with only slight impairment. The lens might present itself under one of two aspects when the cataract was sufficiently advanced for any question about maturity to arise. In the first of these it is bluish-white in colour, the whiteness being broken by lines. In the second aspect the surface resembled that of bees' wax, or brownish-yellow horn. Exceptionally in the latter class the colour is still deeper, ranging from dark-brown to "black." It was important to ascertain whether the opaque surface is in contact with the capsule of the lens or not. With a moderately dilated pupil a pencil of light was directed upon the eye, so as to fall obliquely from the temporal side. If the opacity be in contact with the iris, except for the intervention of the anterior capsule, the margin of the pupil would cast no shadow upon the opacity. If the iris be separated by a layer of transparent tissue, the margin of the pupil would cast a crescentic shadow of variable breadth. The advantages of waiting for maturity were next described. The disadvantages of waiting for the maturity of cataract were of the most striking and obvious kinds. In order to determine the class of cases in which early operations may be undertaken, it is necessary to reflect on the various physical conditions which the lens may present. The changes in the lens which occur with old age and advancing life were next described. The chief differences which occur in the development of senile cataract depend upon the proportions which the nucleus and cortex bear to one another. In the determination of the sometimes difficult question, At what stage of the development of cataract the fact of its existence should be made known to the patient? it is always necessary to bear in mind that when the striæ are fine and small, and therefore developed only in a thin and superficial layer of lens substance, their increase and maturation must not be expected to occur nearly so soon as when they are broad and developed in a thicker layer. There is a certain amount of convenience in describing a cataract as "incipient" before it interferes seriously with vision, as "progressive" when it has fairly invaded the area of the undilated pupil, as "mature" when the opacity has reached the capsule, and as "overmature" when the natural striation of the cortex is beginning to disappear. The distinction between "hard" and "soft" cataracts, as applied to those of aged people, is less satisfactory as a matter of phraseology, because every cataract is both hard and soft. The physical conditions, then, with which we have to deal in cataract may be summarised somewhat as follows:—There must always be a hard nucleus, of variable size, and this must always be enveloped in a layer of cortical substance, the thickness of which varies inversely as the size of the nucleus. In "progressive" cataract the cortical substance may be opaque, or of an opacity interrupted by still transparent lines in the laminæ immediately surrounding the nucleus; while it is transparent in the more superficial laminæ which separate the opaque portions from the capsule. When this is so the still transparent laminæ retain a viscidity and coherence which those invaded by opacity have lost. In more advanced cases the whole of the cortex may be reduced to a pulpy consistence; and by this time, generally speaking, the lens will have returned to its normal dimensions. At a still later period all trace of rectorial or fibrillated structure will disappear, and the capsule will contain a milky or turbid fluid, perhaps mottled by dots of calcareous deposit, while the nucleus may be discovered floating loosely within. Where original interference has been withheld, and time and opportunity afforded, it has sometimes happened that a good deal of the fluid cortex has ultimately undergone absorption, and that some amount of vision has been restored. The nucleus in such cases has either retained its transparency, or its small size has removed it from the axis of vision. The conditions which justify early operation were next discussed. The first step in the direction of early operation was taken by von Graefe as one of the results of his method of modified linear extraction. Of late years the separation of the active principle of Calabar bean has given us, in the shape of eserine, a drug of very great value in many ocular maladies; and not the least of its uses depends on its power of producing contraction of the pupil by which the iris may be drawn out of the angles of the operation wound and pulled well down into the anterior chamber. The state of the pupil having been attended to, the next points for consideration are the size, position, and direction of the incision. The principles to be recognised, and the different methods of carrying them out by various knives and instruments, of which Mr. Carter preferred the very narrow lance-knife of Dr. Bell Taylor, formed the subject of the latter part of the lecture. The various instruments concerned were severally handed rounded for inspection and comparison. The manner of performing the iridectomy and the division of the capsule of the lens received careful and detailed description. Dr. Noyes' elevator was favourably spoken of. The question of the propriety of extracting immature cataract will turn upon the probability of certain risks being successfully avoided or overcome. The method of procedure to be adopted in such cases occupied the lecturer to the close of his remarks.

VITAL STATISTICS

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5261 births and 3410 deaths were registered during the week ending the 26th ult. The annual death-rate in these towns, which had been equal to 22·2, 21·0, and 20·7 in the three previous weeks, further declined last week to 20·3. During the first four weeks of the current quarter the death-rate in these towns averaged only 21·1 per 1000, against rates declining steadily from 27·7 to 22·4 in the corresponding periods of the five years 1879–83. The lowest rates in these towns last week were 15·0 in Norwich, 15·9 in Bradford, and 16·9 both in Portsmouth and Leicester. The rates in the other towns ranged upwards to 24·1 in Sheffield and Newcastle-upon-Tyne, 25·5 in Leeds, and 26·8 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 456 and 460 in the two previous weeks, declined to 418 last week, and were fewer than in any recent week; they included 130 from whooping-cough, 97 from scarlet fever, 86 from measles, 48 from "fever" (principally enteric), 27 from diarrhœa, 26 from diphtheria, and 4 from small-pox. No death from any of these zymotic diseases was registered last week in Norwich or in Sunderland, while they caused the highest death-rates in Leeds, Manchester, and Sheffield. Whooping-cough caused the highest death-rates in Brighton and Sheffield; scarlet fever in Leeds, Preston, and Birkenhead; measles in Derby, Salford, and Oldham; and "fever" (presumably enteric) in Blackburn. The 26 deaths from diphtheria in the twenty-eight towns included 16 in London, 3 in Birmingham, and 2 in Liverpool. Of the 4 deaths from small-pox, 15 less than those in the previous week, 2 occurred in London and 2 in Birmingham. The number of small-pox patients in the metropolitan asylum hospitals, which had been 107 and 102 on the two preceding Saturdays, was 104 at the end of last week; the new cases admitted during the week were 19, against 21 and 9 in the two previous weeks. The Highgate Small-pox Hospital contained 10 patients on Saturday last, no new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 379 and 395 in the two previous weeks, declined last week to 360, and were so many as 178 below the corrected average weekly number. The causes of 91, or 2·7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Norwich, Plymouth, Nottingham, and Sunderland. The proportions of uncertified deaths were largest in Halifax, Leicester, Wolverhampton, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 25·4, 22·1, and 22·0 per 1000 in the first three weeks of this year, declined to 20·1 in the week ending the 26th ult.; this rate was 0·2 below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged upwards from 15·2 and 17·2 in Dundee and Leith, to 21·5 and 22·6 in Greenock and Glasgow. The deaths in the eight towns included 74 which were referred to the principal zymotic diseases, against 74 and 87 in the two preceding weeks; 23 resulted from whooping-cough, 14 from measles, 11 from diphtheria, 12 from diarrhœa, 7 from scarlet fever, 7 from "fever" (principally enteric), and not one from small-pox. These 74 deaths were equal to an annual rate of 3·1 per 1000, which was 0·6 above the mean rate from the same diseases in the large English towns. The rates from these diseases in the Scotch towns ranged from 0·0 in Perth to 3·5 in Glasgow and 3·6 in Greenock. The deaths from whooping-cough, which had been 13 and 22 in the two previous weeks, were 23 last week, of which 16 occurred in Glasgow, 3 in Edinburgh, and 3 in Aberdeen. The 14 fatal cases of measles also showed an increase upon recent weekly numbers, and included 7 in Edinburgh, 5 in Paisley, and 2 in Leith. Five of the 11 deaths from diphtheria, and 5 of the 7 from scarlet fever, were returned in Glasgow. The 7 deaths referred to "fever" were below the average, and included 4 in Glasgow. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been 145, 105, and 101 in the three preceding weeks, further fell to 91 last week, and were no fewer than 85 below the number in the corresponding week of last year. The causes of 80, or nearly 17 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 28·7, 27·1, and 26·9 per 1000 in the three preceding weeks, further declined to 24·5 in the week ending the 26th ult. The death-rate during the first four weeks of the current quarter averaged, however, 26·8 per 1000 in the city, against 20·4 in London and 19·7 in Edinburgh. The 165 deaths in Dublin last week showed a further decline of 15 from the numbers in the three previous weeks, and included 5 which were referred to scarlet fever, 3 to diphtheria, 3 to "fever" (including typhus, enteric, and simple continued), 2 to whooping-cough, and not one either to small-pox, measles, or diarrhœa. Thus 13 deaths resulted from these principal zymotic diseases, against 23 and 19 in the two preceding weeks; they were equal to an annual rate of 1·9 per 1000, the rate from the same diseases being 2·6 in London and 2·7 in Edinburgh. The fatal cases of scarlet fever in Dublin, which had been 11 and 5 in the two previous weeks, were again 5 last week; whereas the deaths referred to "fever" declined to 3 from 6 and 8 in the two previous weeks. The 2 deaths from whooping-cough showed a further decline from recent weekly numbers; whereas the fatal cases of diphtheria were 3, only one having been registered in the three previous weeks. No fewer than 10 deaths were referred to different forms of violence, which considerably exceeded the average. The deaths of infants showed a marked further decline. The causes of 21, or nearly 13 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Benjamin Burland, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon.

ADMIRALTY.—Fleet Surgeon William B. Fletcher has been appointed to the *Crocodile*.

ENGINEER VOLUNTEERS.—1st Newcastle-on-Tyne and Durham: Thomas Anthony Dodd, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—2nd Sussex: Acting Surgeon Geo. Hurlstone Elliott resigns his appointment.—2nd Volunteer Battalion (the East Yorkshire Regiment): Acting Surgeon Alfred Jackson to be Surgeon.—18th Middlesex: Surgeon and Honorary Surgeon-Major Thomas Harvey Hill resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of his corps on his retirement.

Correspondence.

"Audi alteram partem."

WELLINGTON COLLEGE.

To the Editor of THE LANCET.

SIR,—I am reluctant to intrude again on your space with as many words as would be necessary to comment as fully as I should wish on the remarks made on my former letters by Mr. Baldwin Latham and others.

The district of Sandhurst, from which Mr Baldwin Latham has taken the death-rate as a criterion of the health of the locality, is quite an exceptional district. The population is made up largely of boys at Wellington College, of young officers at the Royal Military College, of able bodied soldiers and servants in the prime of life, among whom there should be no death-rate, for they have all been certified as sound and healthy. The proportion of young children who swell a death-rate forms a very small portion of the population, and the poor old people who also swell a death-rate go to a union outside the district to die. It is essentially a neighbourhood of people in the active and least fatal period of life, so that any inference from the death-rate is a fallacious basis on which to estimate the healthiness of the locality.

As a rule, those who become ill and unable to work go away to their homes, and there die if the illness is fatal, and thus again lessen the death-rate in the registry of the district.

Mr. Baldwin Latham quotes from Addison as to the meaning of the term "murk." I used it in the sense in which the local folk use it, which is more likely to be the sense in which it has been applied to the locality than the sense given in any literary quotation; but Shakespeare uses it as applied to the atmosphere, as indeed Addison does too; and Milton:

"His nostrils wide into the *murky* air."

I cannot therefore see the sense of Mr. Baldwin Latham's application of the word as indicating the colour of soil. But all this is foreign to the subject. Mr. Baldwin Latham's own admission of the dark soil so charged with organic matter as to discolour the water oozing from it is a sufficient evidence of its insanitary nature. Mr. Baldwin Latham's measurement on the map leads him wrong, like his death-rates, through a want of knowledge of local circumstances. The College boys are constantly playing about Murk Bottom (*it is indeed a part of their recreation-ground*), inhaling the impurities given off from it. The boys from the healthy school in question never go there. The soil is undergoing constant decomposition; pent-up water from it soon smells like a cesspool. The prevailing winds drive the atmosphere of this spot away from the healthy school, as may be seen from the direction in which the trees lean in the locality. The same winds bring the damp air from swamps more extensive than Murk Bottom to the south and south-west of the College, from which the healthy school in question is far removed. Moreover, it is a fact beyond dispute that often when the College and masters' houses are wrapped in mist or fog, the healthy school is free from it, *the land around it being thoroughly trenched and thoroughly drained.*

Mr. Baldwin Latham insinuates that I am responsible for the condition of masters' houses. I have never ceased since they were built to express dissatisfaction at their sanitary arrangements. The masters selected their own architects, who planned their drainage and were responsible for their construction. The governing authorities approved of the plans; I alone took exception to them. Eight years ago I suggested to the Vice-President that there should be a thorough investigation of the sewerage of the College, the houses, and estate; and he authorised, at my suggestion, the College architect to make a map of the entire sanitary arrangements of the place, which was done at considerable labour and cost. This map showed at a glance the defective principles of the sewerage. Some alterations were made in the College which I represented as being the most urgent, and to these Mr. Baldwin Latham has given in his report to the governors his most unqualified approval. Again, the year before last I wrote privately to a committee of governors the following words, but they were unheeded: that "as some £60,000 worth of buildings have been erected on the College estate, apart from the College, without any adequate system of sewerage, it is a pressing question how the refuse of these houses can be disposed of so as to be less offensive than at present." I also made the following recommendations: 1. That wherever water is found near the surface it should be removed by land drainage. 2. That a system of sewerage should be adopted for houses on the estate. 3. That the sewage should be dealt with and rendered inert (by chemical or other means) at the outfall before being applied to the land. 4. That where earth-closets are used a proper disinfecting earth should be employed, the local soil being unfit for the purpose. 5. That a thorough investigation should be made of the sanitary arrangements of the houses where the recent cases of illness occurred. My recommendations were unheeded.

Mr. Baldwin Latham writes that the governors are alive to the advantages of *surface* drainage. What is being done in this respect is the digging of superficial trenches or small ditches for the water to trickle down to the lakes or lower ground. There is no thorough system of subsoil drainage, such as Dr. Buchanan, the present head of the Medical Department of the Local Government Board, has taught us is essential to the preservation of the health of any locality. Mr. Baldwin Latham passes without notice the subsoil of clay at the College, which makes it so damp, as he does the fact of the existence of at least £30,000 worth of house property on the College estate, containing more than a hundred residents, for which his scheme has provided no sewerage whatever. Each occupant does the best he can with his sewage on the limited area allotted to him.

The water-supply of the College Mr. Baldwin Latham writes cautiously about, but at best a perusal of his letter will show it to be water impregnated with sewage subjected to filtration. In his report to the governors, he represents that the undrained district of Crowthorne, which comprises all the undrained portion of the College property (for which his scheme has made no provision), is, as long as it remains as it is, a source of danger to the water-supply of the College through percolation of sewage. How does he reconcile this with the statement in his letter that "*ultimately* the water-supply will be of the most wholesome character," while there is no prospect of this district being drained? I would ask, How distant is the *ultimately?* When are the College boys to be relieved from drinking filtered sewage-polluted water?

The allusion made by me to the A B C process as a process condemned by a Royal Commission is a fact no one can deny, and Mr. Baldwin Latham misrepresents me when he says that I give advice which contradicts itself; he knows, as well as I do and others, that the condemnation by the Commission has never been satisfactorily answered, and that the process is one which has been tried elsewhere and been abandoned. These are facts upon which comments are needless. Mr. Baldwin Latham's recommendation, that I should read the later reports upon the A B C process, comes too late, as I had already read them. They do not seem to me to sufficiently refute the condemnation of the Royal Commission, and the weak part of Mr. Baldwin Latham's scheme is that he is pouring the effluent sewage on land already super-saturated by years of use for sewage irrigation, and rendering still wetter soil already too wet with the daily refuse and water-supply for 500 persons, and too near to masters' houses and the College.

Mr. Armstrong's statements are incorrect; a master in the prime of life died eight years ago of blood-poisoning, and his wife had previously died of the same after her confinement, both in the same house; and the members of a family occupying it since have been constantly unwell. Another death from blood-poisoning after confinement has also taken place, and three further deaths from blood-poisoning among the boys, and deaths from acute lung disease. A master in the prime of life, within the past year, has died also; but he, like others, left the Sandhurst district and died elsewhere. A case of typhoid arose on the estate clearly traceable to local causes, and another case not so clearly traceable, and several other deaths have taken place not fairly referable to local circumstances. The spirit of Mr. Armstrong's letter contrasts strangely with that of one he has written to me in the present month, in which he says he hopes the friendship between us will always continue, which I entirely reciprocate.

Of the gravity and desperate nature of some of the illnesses at Wellington College the following letter will be a criterion. It indicates also my desire for the fullest investigation into the character of the illnesses there, and of the unwillingness of the authorities to facilitate this investigation. It also proves the admission on the part of the governors how fully they accepted the fact of the grave and fatal illness at Wellington College. The poor boy whose case is here referred to was taken ill at Wellington College. He was seen by Mr. Edgcombe Venning of Sloane-street. We agreed to remove him from the College, where his pyæmic symptoms arose. He was subsequently seen by Sir William Gull. The death of this poor boy, the son of a distinguished person, brought home at last to the governors the necessity of an inquiry. This death took place out of the Sandhurst district, and so would not appear in Mr. Baldwin Latham's death-rate estimate, any more than would the deceased master before mentioned.

"15, Cromwell-road, South Kensington, May 3rd, 1883.

"DEAR SIR,—I have this evening received from Mr. Wickham your letter to him of this day's date, in which you ask him to obtain my permission on the part of the governors to send for both Sir W. Gull and Sir J. Paget to see the poor boy ——, and then to take them to the sanatorium at Wellington College. I cannot express too strongly my deep regret, shared, I am sure, by all the governors, for the alarming state of this poor boy; but I gather from what Mr. Wickham tells me of his conversation with you on this subject that Lord —— does not wish to send for either of the eminent men, and if he did I presume he would himself send for them, the boy being removed from the College, and at his own home. I also gather that Mr. Wickham asked you if you thought a second opinion was necessary for either of the boys now in the sanatorium, and

that you answered, 'No.' With regard to your desire that these high authorities should go to the sanatorium to see the two cases there, which 'in your opinion supply a missing link in the chain of evidence in these cases,' I think such a course wholly unnecessary. The governors have accepted the fact that this boy is suffering from blood-poisoning, and that others have suffered from the same cause, and they require no further opinion, however eminent, on that matter. They are taking every possible means to discover the true cause of the evil, and they will not lose a moment in endeavouring to remedy it as soon as they are in a position to do so. Believe me, yours faithfully,

"J. G. Barford, Esq." "W. P. TALBOT.

Sir W. Gull was Lord ——'s family physician; thus I suggested his seeing this boy and the others, and Sir J. Paget I thought the best surgical opinion on cases which presented both a medical and surgical aspect.

I am, Sir, yours very truly,

Wokingham, Berks, Jan. 28th, 1884. J. G. BARFORD.

To the Editor of THE LANCET.

SIR,—In your current issue, Mr. Armstrong, medical officer to Wellington College, writing upon the prevalence of sore-throat at the school, touches upon a very important question—namely, the connexion, if any, between follicular tonsillitis and diphtheria. He quotes from Quain's Dictionary a paragraph which he evidently considers as supporting his opinion that follicular tonsillitis and diphtheria are of completely different origin, and that the one can be easily mistaken for the other, follicular tonsillitis being but a simple malady.

It cannot be to widely known that so-called follicular tonsillitis, though doubtless readily produced by cold, as by bitter east wind, can as readily be caused by impure air—I mean air contaminated with sewer gas. We may, in fact, often see diphtheria and tonsillitis side by side in the same house. In illustration, I mention the following cases, which have but lately come under my notice.

Last June I had under my care a child suffering from a severe form of diphtheria; the membrane implicated both nares and throat. The disease, I think, without doubt had been contracted from a servant who had had sore-throat for some days, and who when seen was found to be suffering from diphtheria. Three other children were affected in this house, but in different degree, two having but simple follicular tonsillitis, and the third only an inflamed throat with much glandular enlargement. In this instance, therefore, in the same house, and in all probability poisoned from the same source, the servant, we have three fairly distinct varieties of throat disease, of the diphtheritic type. The house was large, airy, and in perfect sanitary order. Had it not been so I conclude the disease in all the cases would have assumed a severer form—more the specific characters of diphtheria. Last November I was summoned into Dorset, to see a family where four children and five servants were suffering from diphtheritic sore-throat, under the care of Dr. Scallon. Two of the servants had distinct well-marked diphtheria; but with the children and the other servants the throat trouble was more of the nature of follicular tonsillitis, with glandular enlargement. One child had small membranous patches, and also had a slight sanious discharge from the nose. The house, a fine old mansion standing in a park, was supposed to be in perfect sanitary order. The family had not been in residence for more than a few days before the outbreak commenced. I roughly tested the drainage with oil of peppermint, and found that the main drain was ventilated into the nurseries by means of a bath waste-pipe. Subsequently a sanitary engineer found the drainage most defective, so much so that sewer-gas must have permeated every room in the house. Removed from this tainted atmosphere all the sufferers rapidly improved. In these cases, as far as the specific appearance of the throat helped our diagnosis, it would have been impossible to have spoken of the majority as affected with more than simple follicular tonsillitis. Viewed from a different standpoint, the throats were evidently of a diphtheritic nature, and when treated as such rapidly improved. Had we looked upon follicular tonsillitis as a simple malady, I think the result might have been different.

Some years ago I had the opportunity of seeing a small epidemic of diphtheria. The attack, mainly limited to the children of a certain village school, was in many cases severe, and several deaths took place. Professionally I had nothing to do with the school in question, but I had many patients in its immediate vicinity; and I had among my own patients quite an epidemic of various grades of sore-throat. Under such conditions a practitioner has unusual facilities for watching the progress of disease. With diphtheria at their very door, every patient with the slightest degree of sore-throat immediately seeks advice; so that within a radius of two or three miles from the focus of the disease I had abundant opportunity of watching the undoubted prevalence of sore-throat, the prevailing type being that as seen in follicular tonsillitis; but still sprinkled, as it were, among these cases of simple sore-throat were examples of the membranous variety, in number sufficient to warrant my looking upon the cause of the whole group of cases as of more than catarrhal origin. It is my opinion, and I believe it is an opinion shared by many, that a membranous sore-throat, indistinguishable from diphtheria by its physical characters, can be produced from cold alone; while, on the other hand, we may often meet with cases of simple follicular tonsillitis which owe their origin to drain poison, and which are of undoubted diphtheritic character, but which again, as regards physical characters, cannot be distinguished from the catarrhal variety. Such bad throats we meet with under every degree of intensity; and it is certainly erroneous to consider that there is any sharp line of demarcation, regarding physical characters alone, between the sore-throat of follicular tonsillitis and that of diphtheria, the one merging inseparably into the other. It is impossible to come to any other conclusion when the disease is watched as occurring in different members of the same family, all of whom are suffering from a common poison.

I am, Sir, faithfully yours,

DONALD W. C. HOOD, M.D.

Green-street, Park-lane, W., Jan. 1884.

THE PAYING SYSTEM AT GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—In reply to your suggestion, and also in answer to your comments of last week on the provident system of medical relief recently initiated at this hospital, I am glad of an opportunity of explaining the reasons which have necessitated such an important departure from the cherished traditions of the hospital, and to record my short experience of the working of the new system. New it scarcely can be called, for among the numerous applications of medical relief introduced of late years, none have met with so much favour from the charitably disposed as those which encourage the poor to help themselves by inducing them to contribute something, however small, towards their own support and independence. This doctrine has been so industriously diffused by charity reformers and political economists, that in theory it may almost be said to have become universal, and may in part account for the diminished receipts of the older subscription hospitals; while the legion of small hospitals that have sprung up amongst us within the last fifty, and especially within the last twenty, years firmly hold their own by exacting payments of varying amounts from their participants. The statistics of the Hospital Sunday Fund, which by no means exhaust all the curative establishments assumed to be supported by voluntary means within the metropolitan area, nevertheless show an average amount of £32,609, derived annually from patients' payments, a sum nearly equivalent to the income of the Fund itself; while several of the larger, and not a few of the smaller, hospitals limit their diet scales to the bare necessaries of life, such superfluous luxuries as tea, sugar, and butter being supplied by the patients themselves or by their friends, an arrangement which most people will consider in the light of money payments.

But with respect to the new aspect of affairs at Guy's Hospital. It is no light matter for an old and well-worn establishment to be forced to reconstitute its system of charitable relief; and I question whether all the moralising in the world would have induced the governing body to have given their sanction to such a reversal of the "dare quam accipere" superscription of the founder had not circumstances rendered it imperatively necessary. The revenues of the hospital, which are derived almost entirely from land, have suffered so severely from

recent years of agricultural depression that the annual income, formerly estimated at £50,000, has gradually dwindled down to £30,000; while a disaster which occurred in the early part of last year, occasioned by the inroads of the sea on the hospital property on the Essex coast, has caused a further deficiency of £4000, which it is hoped, however, will be only temporary. When misfortunes of this kind occur to private individuals or to public trusts, there are only two alternatives left them, either to reduce the expenditure to a level with the income, or to devise some reasonable method by which excess of expenditure may be met without impairing the efficiency of the trust. An endowed charity can scarcely appeal to the public for help, and it is very undesirable in the interests of a large medical school that the facilities for clinical instruction should be curtailed by closing wards and diminishing the number of patients, whether of an in-door or out-door character. An income of £30,000 will be found amply sufficient to maintain a parish or union infirmary, with its complement of five or six hundred beds, but it is found to be practically impossible to do the same in the case of a metropolitan hospital, handicapped as it is with its out-patient department, high-class nursing, parish and municipal rates, let alone the numerous adjuncts necessary to constitute it a medical school. These matters have been well and anxiously considered by the governors and medical staff; and as an aid in solving them, it was agreed to set apart a small number of beds in each ward, with the exception of those used for accidents and medical and clinical purposes, for persons who were able of themselves, or through their friends or employers, to pay £1 1s. a week towards their maintenance. It was also fully understood that the paying patients should be treated in all respects as the others, and equally with them subservient for clinical instruction. Personally speaking, I confess I was not at all sanguine of the success of this venture; for although something of the kind had been in operation for years at the Fever and Small-pox Hospitals and in several minor establishments at the West-end of London, the experience of a similar attempt at St. Thomas's Hospital to receive what are there called "poor paying patients" was far from encouraging, and it appeared only natural that persons admitted under the new conditions would have decided objections to being placed alongside of others received in the ordinary way. In point of fact, this obstacle at first deterred many from taking advantage of the offered privilege, till at length the experience of the few spread among the many, and it has now become difficult, except perhaps in one or two special departments, to meet the increasing demand for paying accommodation. The total number of beds used for the purpose does not exceed forty, and the patients in nearly all cases have been received on the recommendation of their medical advisers. It is true that many of them may not be all that can be desired for teaching purposes, but they have their value nevertheless; and although some have at first expressed some dissatisfaction with their moral surroundings, in most instances in the course of a few days they become reconciled to the situation, and cheerfully submit to it.

What is perhaps a more important innovation is the exaction of a charge of threepence for the weekly supply of medicine to out-patients. Such an arrangement was no doubt calculated to create some dissatisfaction among the masses who for a century or more had looked upon the hospital as an emporium where advice and medicine might be had at any time for the asking. The propriety of the change was, however, maturely considered, and in the autumn of last year a scheme was drawn up by the medical staff and adopted by the governors, requiring each out-patient to pay a small sum for medicines and dressings; but in consequence of some delay in obtaining the sanction of the Charity Commissioners and the necessity of forewarning the public, the matter remained in abeyance till last week. Apart from those ready and willing to conform to the new arrangement, the scheme deals with the really necessitous by furnishing them with medicine without payment at their first visit, but requires them next time they apply—that is, after an interval of a week—to bring with them a letter, certifying their inability to pay, from an officer of the Charity Organisation Society. This Society has taken much interest in the movement, having sent an experienced officer to make observations on the class of persons seeking relief, and has undertaken the task of making the necessary inquiries into the cases referred to them. Along with the ordinary out-patients, it was proposed to carry into effect a corresponding arrangement in the department of the hospital appropriated for the reception and treatment of minor injuries; but, in consequence of some difficulties intervening, this part of the plan has not as yet been completed. The same principle, however, holds good in both classes, and as a large proportion of the injuries are the result of drink and misconduct, it is but reasonable that the recipients should be taxed to diminish somewhat the cost of the now very expensive outlay in surgical dressings.

The inauguration of the new system was watched with no little anxiety, for although there was a consensus of opinion about its expediency, there was a pretty general feeling that for a time, at least, it would have the effect of diminishing the number of applicants. Such, however, has not been the case in any perceptible degree. On the first day of the alteration the great majority of the applicants, previously forewarned, made their payments as a matter of ordinary routine; a few remarked that it was a good thing and would make them value their physic all the more; some expressed their surprise that it had not been done before; others brought no money with them but would go home and get it; only a very few admitted their inability to pay, and these, after having their wants supplied, were relegated to the friendly offices of the Charity Organisation Society. In the course of the first week about 1200 persons were supplied with medicines, and out of the number not more than twenty were passed on the plea of poverty; some of these, however, were found, on after inquiry, to be quite able to pay the small charge demanded of them. On the whole, the experiment seems to be working successfully. There is no very perceptible difference in the aspect of the people frequenting the waiting-rooms, except, perhaps, the absence of some members of the rough fraternity, and the general feeling, as far as one can judge, appears to be quite in harmony with the new situation.

As regards the legality of these proceedings, which, judging from your notice, you appear to call in question, I can only say that there is nothing in the testamentary dispositions of the founder nor in the charter of the corporation which refers in any way to out-patients, nor, indeed, was this system of relief contemplated for full fifty years after the origin of the hospital. The Charity Commissioners, in approving of the new arrangement, seemed to think it a matter which scarcely concerned them, and that it was entirely within the jurisdiction of the governors.

I am, Sir, yours, &c.,

Guy's Hospital, Jan. 29th, 1884. J. C. STEELE, M.D.

TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—In justice to the Indian Military Department, to which I belong, and which, with the Home Medical Department of the Army, has (especially in Egypt lately) had to bear more than the usual allowance of unmerited official and unofficial, responsible and irresponsible obloquy, and which is apt to be looked upon, even by the medical press, as a mere routine-work branch of the profession, unsolicitous to medical research, I beg respectfully the favour of your publishing the following. When I recommended intra-peritoneal injections in cholera, in THE LANCET of Oct. 13th, before Dr. Purvis or Dr. Cooney wrote to you a week later courteously alluding to my prior proposition and recommending another procedure (vesical injection), neither they nor I were aware, I am sure, that Dr. B. W. Richardson amongst his many admirable experiments had tried their proposal of vesical injection, or mine of intra-peritoneal injections in cholera. Indeed, Dr. Cooney makes no allusion to intra-peritoneal injections, and Dr. Purvis did not think it would be wise to try them, save at first on the lower animals. I proposed this proceeding for cholera, and in utter ignorance of Dr. Richardson's work, relying on the following authorities, who had successfully used it—viz., 1st, Professor Mosler, Messrs. Bizzozero and Golgi,[1] who have also injected the spleen, as have also Hammond, Kussmaul, Leyden, &c., and once fatally. 2nd, Dr. Kaczorowski of Posen.[2] 3rd, Dubar and Rémy, whose work was carefully brought before the British public in THE LANCET itself. Had I known, as stated in your

[1] Revue de Médecine, June 10th, 1881, quoting Deutsches Archiv.
[2] Deutsches Med. Wochensch., 1880, quoted in La Thérapeutique Contemporaine.

article,[3] in which you make no mention of me, but by a pardonable mistake, attribute the revived proposition to others, that Dr. Richardson had experimented in the matter, I would most certainly have quoted so eminent an authority, and I humbly apologise for my ignorance. But most indubitably this idea of injecting the peritoneum for cholera occurred to me independently. I am glad to hear that Dr. Richardson's case recovered, and I believe the future successful treatment of cholera lies in that direction. The ingenious suggestion of Drs. Purvis and Cooney (which it appears was also originally Dr. Richardson's) of injecting the bladder, should of course be tried first; but I confess I have much less hope of its success. But, in Heaven's name, let something of the sort be tried. All drugs (save a timely morphia injection perhaps) during a long experience have appeared to prove almost useless, including chloral, the carbolates, &c., *ad nauseam*, figuratively and physically. I hope Dr. Richardson will again take the matter up, since it appears to be his own.—I am, Sir, yours obediently,

CAMERON MACDOWALL, F.R.C.S.Edin., &c.,
Quetta, Dec. 14th, 1883. Bombay Army.

POISONING BY SULPHURIC ACID.

To the Editor of THE LANCET.

SIR,—Sulphuric acid is so very rarely criminally administered as a poison that it may be worth the space occupied to mention a case of the kind of recent occurrence. At the Ulster winter assizes, 1883, held at Belfast, Patrick Sorraghan was convicted for having feloniously administered to his wife various poisonous matters. He was sentenced by Baron Dowse to penal servitude for life. The evidence in the case proved that the prisoner, shortly after his wife's confinement, had repeatedly given her gruel, tea, corn-flour, wine, and "burnt" whisky and ginger, and that she was always very ill after partaking of these articles, and on one occasion she was apparently near death. In the prisoner's possession arsenic was found, and also a small quantity of a red liquid. The latter proved to be port wine, containing 12·5 per cent. of sulphuric acid. Mrs. Sorraghan proved that her husband had given her some red wine, which had burnt her mouth and throat, and which no doubt was identical with the red liquor examined by me. The witness applied her tongue to the wine, and stated that it had exactly the same tart flavour as the red wine given to her by her husband. Her more important symptoms were a burning pain in the stomach, vomiting, and great prostration. Arsenic may have been in part the cause of the symptoms.

I am, Sir, yours truly,

CHARLES A. CAMERON, M.D.,
Professor of Chemistry and Hygiene, R.C.S.I., Medical
Jan. 1884. Officer of Health, Dublin.

TREATMENT OF FLAT-FOOT.

To the Editor of THE LANCET.

SIR,—In the issue of THE LANCET of Jan. 26th a note on the "Treatment of Flat-foot" appears written by Mr. W. J. Walsham, of St. Bartholomew's, in which is given an account of a boot devised by him for its relief. Briefly he describes the method as that of "continuous elastic tension" exercised "on the sunken arch." I am quite able to support the statement made by him, that by such means great relief is at once given and permanent benefit obtained by its use. The method adopted by me, however, for many years now, is that suggested by Mr. Barwell in his work on "Talipes," and I have every reason to speak well of the principles advanced by him so far as this form of club-foot is concerned. Practically Mr Walsham and Mr. Barwell aim at obtaining the same result—elastic support to the arch; but Mr. Barwell accounts for the production of flat-foot by weakened muscular force in the tibial muscles, and hopes to succeed by assisting the fatigued muscles in restoring to them their former power. I infer from the paper written by Mr. Walsham that he considers the ligaments to be at fault. For a fuller description of the means used for attaining this end I will refer your readers to Mr. Barwell's book on the "Treatment of Club-foot without Tendon-cutting," published by Hardwicke, Piccadilly. When the more severe measures advocated by Dr. Ogston are discussed and recommended, it seemed necessary to point out any means likely to give us success, that they may at least be tried before we adopt those attended with more risk and suffering.

I am, Sir, your obedient servant,

LEWIS W. MARSHALL, M.D.,
Jan. 1884. Surgeon to the Children's Hospital, Nottingham.

[3] Nov. 17th, 1883, p. 872.

BIRMINGHAM.

(From our own Correspondent.)

HOSPITAL SUNDAY.

AT the commencement of the present month a meeting of the Hospital Sunday Committee was held at the General Hospital, when a cheque for £4881 4*s.* 8*d.* was presented as the result of the periodical Sunday collection. This amount included £93 19*s.* 6*d.* from new and increased subscriptions, an indication that the interest in this laudable work still maintains its standard and flourishes in our midst. The importance and value of these contributions may be fairly estimated when we learn that since the year 1859 upwards of £42,000 has been handed over from this source to the General Hospital alone, besides large sums distributed to the other charities of the town.

HOSPITAL SATURDAY.

Although so large an increment of income is realised from the source represented above, there is another auxiliary to ways and means not to be despised nor lost sight of. For those who do not respond to the scriptural injunction to come together in sundry places of worship, there is provided an opportunity of subscribing by the plan of what is known as Hospital Saturday. By virtue of this movement as much as one-eighth of the income of the medical charities of the town is contributed. Out of a town population of over 400,000, and a large and thickly inhabited district around, as many as 120,000 persons, by reason of accident or disease, seek help at the hospitals of the town in the course of the year. It is encouraging to think that by the adoption, chiefly, of a system of weekly contributions, the class mostly benefited by these philanthropic efforts have the chance of participating in the necessary expenditure entailed; and also that they are, in the accomplishment of this object, accorded the important privilege of sending representatives to the governing bodies of the different hospitals.

PROPOSED MIDLAND DENTAL SOCIETY.

A meeting of dental practitioners was held on the 12th ult. to consider the advisability of forming a Dental Society for the Midlands. Some opposition was manifested on the ground that already a local branch of the British Dental Association had recently been formed, and ultimately the motion to form a separate Society was lost by twelve votes to eleven. Out of 4000 names on the Dental Register, it is a matter of surprise that so large a number resident in the Midlands should not have already combined with the object of elevating the interests of the dental profession, and promoting the diffusion of scientific and practical knowledge in relation thereto. It is to be hoped that the mode by which this is proposed to be done will not in any way imperil the success of the movement, and that the endeavour will lead to the establishment of mutual relations of a cordial character between those practising dentistry as a branch and those practising general medicine and surgery.

KEEPING A CORPSE UNBURIED FOR TWENTY YEARS.

A singular case of non-interment of a body for twenty years was lately brought to light in a court in one part of the town. A woman between sixty and seventy years of age died in the Islington Workhouse in the year 1863, previously expressing an abhorrence to be buried by the parish. Her brother claimed the body, and, providing a metallic coffin, brought it to Birmingham by road for interment. Here it seems the relatives whom he expected to assist him in the burial expenses failed to do so, and, having no means himself, he took the coffin, enclosed in a wooden box, to the house he lived in, where in a wretched and eccentric manner he passed a secluded life for twenty years. At length, forced by abject destitution to seek the help of charitable neighbours, he confessed to the contents of the large box which

had so long remained with him in his miserable isolation and mistaken fidelity to the wishes of his deceased sister.

SMALL-POX IN BIRMINGHAM.

Forty-eight cases have been reported during the week ending January 26th. Number in hospital on Jan. 19th, 1884, 119; admitted since, 49; discharged cured, 28; died, 3; remaining in hospital on Jan. 26th, 137.

EDINBURGH.

(From our own Correspondent.)

ANNUAL REPORT OF THE ROYAL INFIRMARY.

AN adjourned meeting of the contributors to the Edinburgh Royal Infirmary was held in the City Chambers on the 22ad ult., Lord Provost Harrison presiding, to receive the report by a committee of their number on the managers' annual statement. The report pointed out that the total number of cases treated in the hospital during the past year had been 6829, as against 6443 in the previous year. The number of out-patients had increased, being above 22,000 in 1882–83, whilst the number for the previous year was 18,000, and for the one preceding that 15,000. The ordinary income is £923 9*s.* 8*d.* above that of the preceding year; but of this increase £856 12*s.* 6*d.* arises from students' fees, a shifting source of income. The expenditure was increased by £1339 5*s.* 9*d.*, which is accounted for by the larger number of patients, and by the purchase of furniture.

ROYAL HOSPITAL FOR SICK CHILDREN.

The annual report of this hospital, which was adopted at the annual meeting held on the 21st ult., shows that the number of cases treated during the past year was 559, of whom 334 had been dismissed cured, and 80 had been relieved; while (including old and new cases) 9700 had received treatment at the dispensary, and 255 had been vaccinated, making a total of 10,604 poor sick children who had throughout the year partaken of the benefit of the institution. The total receipts during the year have been £2652 10*s.* 5*d.*, the total expenditure £2913 19*s.* 4*d.*

EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION.

The annual meeting of the Association for the Better Endowment of the Edinburgh University was held in the Physicians' Hall, on the 26th ult. Sir A. Christison moved a resolution relative to the formation of the Stark Scholarship in Clinical Medicine. The amount of the Stark funds, it may be stated, is £1463 7*s.* 4*d.* Among the conditions agreed to by the Senatus are these: That the scholarship is to be open to students who are or who have been in attendance on the class of clinical medicine, and to bachelors of medicine of not more than eighteen months' standing who have attended that class; and that the scholar during his tenure is to carry on original investigations or other work in the medical wards of the infirmary with the approval and under the superintendence of the professors of clinical medicine.

EDINBURGH UNIVERSITY STUDENTS' REPRESENTATIVE COUNCIL.

A movement of very considerable importance to the students of the University, and which promises to be eminently beneficial and successful, has recently been inaugurated. One of the most marked features of Scottish University life is the absence of any bond of union binding together, not only the students of different faculties, but those attending lectures in the same faculty. The necessity for some organisation which would consolidate the students into a corporate whole, encourage social intercourse, and watch over the interests of the students as a body, has long been recognised; and a scheme which has for its object the creation of a body which shall discharge those various duties was recently submitted to a crowded and enthusiastic meeting of students. Mr. Fitzroy Bell (ex-President of the Conservative Association) read the report of the Provisional Committee which had been appointed to draw up a constitution for the proposed Council. The Committee recommended that the Council should consist of one hundred members, elected annually, partly by the students of each faculty and partly by the recognised clubs and societies. They proposed that the faculty of Divinity should send three representatives, that of Law ten, of Medicine thirty-six, and of Arts twenty; and that one or two representatives should be elected by the several clubs and societies connected with the University, the two political associations each sending three members. In the faculty of Medicine nine representatives were to be chosen by students of the first year, and the same number by students of the second and third years and by those of more than three years' standing. In the Arts faculty five representatives were to be chosen by the students of the first, second, and third years, and the same number by those of more than three years' standing. The report of the Committee was unanimously adopted. The election has since taken place, and the Council is now actively constituted.

ANNUAL DINNER OF THE ROYAL MEDICAL SOCIETY: SIR LYON PLAYFAIR, M.P., ON THE MEDICAL BILL.

At the annual dinner of the Royal Medical Society, which was held on the 28th ult., in replying to the toast of the "Universities of Scotland," Sir Lyon Playfair defended the existence of the University of St. Andrews, and spoke as follows with regard to the Medical Bill:—"A Medical Bill must influence for good or for evil a university which depends so much upon its medical graduates. The mode of admission to the ranks of medicine for the future is to be by a single Parliamentary door for each division of the kingdom. The Medical Council is to see that these doors shall be of equal dimensions. You are in the future to be drawn into the profession through this door as a wire is drawn through a standard hole. The motive power on the other side is to be a new-fangled machine, called uniformity in examination. Uniformity in education (for examination is a mere test of its possession) would be as hideous and destructive to learning as uniformity in nature would be objectionable in created things. Education should aim at differentiation, and not at uniformity. Here we represent the universities, and are naturally mainly interested in their prosperity. But, as Scotchmen, we are also interested in the welfare of the medical corporations, which have also done much to advance medical education, and which, in my opinion, are necessary for keeping up the *esprit de corps* of the profession. Both have a common desire to promote the efficiency of medical education in Scotland, and united they would secure it. Before next session of Parliament I hope they will have composed their differences of opinion, so as to strengthen the power of the Scotch representatives in dealing with this important question. Last year these differences nearly paralysed our action, and if the Bill had then been proceeded with it would have slipped through according to English ideas, untempered by our Scotch experience and needs. Let us make our interests identical, and come to a compromise as to the little differences that still exist, and I shall promise you that the Scotch representatives as a body will unite and obtain such modifications in the Bill as will, instead of injuring us, ultimately do good."

THE TERCENTENARY OF THE UNIVERSITY.

The Vienna University has decided to forward a congratulatory address to the Edinburgh University on the occasion of the latter's tercentenary celebration.

SCOTTISH NOTES.

(From our own Correspondent.)

PERTH INFIRMARY.

I AM led to believe that the remarks under the above heading in my "notes" a fortnight ago have in some quarters been construed to mean that there was a difference between the position occupied on the staff by Drs. Bramwell and Stirling, and that the former gentleman occupied a subsidiary position. Instead of this, they were in all respects on a footing of equality. All that was meant was that Dr. Bramwell's less aggressive disposition confined his attention more unreservedly to the exercise of his professional functions, while in matters concerning the management of the house his colleague exercised "a somewhat preponderating influence." The profession and public, I believe, in his own district cheerfully recognise Dr. Bramwell's leading position, and outside that neighbourhood he is known as a most scientific observer, whose writings have added to our know-

ledge in several departments of medicine. But it appears, further, that my most moderate paragraph has so excited another person named therein that he has, in the local press, heaped torrents of abuse on an imaginary correspondent. He must become more calm before receiving further notice.

STUDENTS' UNIONS.

Hitherto one of the chief disadvantages under which our university students have laboured has been the want of cohesion or anything like corporate existence, fitting them to take action of an effective kind when such was deemed necessary. Societies, numerous but mostly feeble, have come and gone in large numbers, many of them have been of great usefulness, but till now there has been wanting a bond sufficient to attract the sympathy of the whole body of students. A Society has been started in Edinburgh, but what is still further to be desired is the extension to the other universities of the spirit which has been so abundantly manifest in Edinburgh, and there is no doubt that willing workers would find the mass of students elsewhere ready to take action. When each university has its representative council we may expect to see the students take more united and dignified action in public and college ceremonials, to make official representations to the authorities on questions concerning their interests, such as the recent discussion as to the examination in pathology at Aberdeen, and probably to appoint a joint committee ready to give expression to the wishes of the students even in matters of legislation. Nothing has been more noticeable in the discussions concerning the Medical Bill than the tendency to sacrifice students' to corporation interests; all that is proposed in the direction of compelling those passing a divisional board to take a separate minimum qualification is unfair to State qualified men, and would not be suggested if the students had an effective voice. Hence it is advisable that machinery should be set up capable at any time of bringing pressing subjects under the notice of Ministers. I believe it is likely that the other universities will be asked to act, and they should not lag behind. In Edinburgh the Society has the sympathy of the professors, and that will scarcely be wanting elsewhere.

REMARKABLE METEOROLOGICAL PHENOMENON.

Up till quite recently the weather in Scotland has been such as to cause regret in the minds of patients who had been sent south to avoid the inclemency of our winters. The newspapers daily recorded the bursting of fresh flowers, the numbers in bloom at this season had never been approached, and winter had apparently forgotten its visit. But during the past fortnight all this is changed, and we have had gale succeeding gale, a decidedly low thermometer, and such a low reading of the barometer as has never before been noticed. The fluctuations of the "glass" had been most marked for a week previously, but on Saturday, the 26th, the mercury continued to drop regularly, as noted every half hour, till at 10 P.M. 27·466 inches was the record at Edinburgh, and at 10 30 P.M. 27·382 at Dundee. These are, of course, corrected readings. The lowest reading hitherto was made at Monach Lighthouse, in the Western Hebrides, on November 11th, 1877, but then 27·752 was the limit. At the time of writing the Ben Nevis observations have not been made public, owing to a break in the wires. The force of the wind, notwithstanding the gradual rise of the barometer, was as high as seventy miles an hour. It will be interesting to note the death-rate for the present and early succeeding weeks, and to observe whether these disturbances are the precursors of severe wintry weather. Already several deaths from exposure are reported.

THE DUNDEE WHALE ONCE MORE.

It is impossible to withhold admiration from Professor Struthers in his persistent fight for a knowledge, if not the possession, of the now celebrated cetacean. Baffled in his efforts to secure either carcase or skeleton, he has been engaged—in the presence of a motley group, each of whom paid half-a-crown for the show—in the unsavoury process of dissection, and has from the cavities of the monster carried off some ten tons of matter for more careful observation in Aberdeen. The anatomy of the whale is of course a favourite study of the professor, and he is now wishing to settle some moot point; but, after all, the public dissection and the graphic sketch (which I enclose) would have deterred all but the bravest. The whale has been embalmed and has started on a tour, during which it may reach London.

THE GIBSON MEMORIAL HOSPITAL, ST. ANDREWS.

On Wednesday of last week the members of the Gibson Trust and other friends met at the hospital, which has now been completed, and Provost Paterson declared the institution open for the reception of the aged, the poor, and the sick of St. Andrews. The building is in every way suitable for its intended purpose; the funds have largely increased since the death of the founder, and there is every prospect of a useful career for this new charity. Already several inmates have found a home in these comfortable quarters.

By the death of Mr. Thomson, of Clairmont, near Lockerbie, a sum of about £25,000 has become available for the purpose of building and perpetually endowing almshouses to such extent as the funds will admit, for the use and benefit of widows, daughters, and sisters of professional men, merchants, and upper classes of householders belonging to the burgh of Dumfries or Lockerbie, who were formerly in more prosperous circumstances, but have become reduced.

IRELAND.

(From our own Correspondent.)

AT the annual meeting of the Dublin Branch of the British Medical Association, to be held this week at the College of Physicians, the Presidents of the College of Surgeons and the Irish Medical Association will bring the present condition of the Army Medical Department under the notice of the members. Attention will especially be directed to the great block to promotion that exists in the senior ranks of the department, and the short period of home service enjoyed by surgeon-majors.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

A deputation, including the members for Dublin and the President of the College of Physicians, Dr. William Moore, had an interview with the Chief Secretary last week with reference to the Bill introduced last session by Mr. Herbert Gladstone on the superannuation of union officers. It was stated that the medical profession were perfectly satisfied with the Bill in question, that they did not require any modifications in its present shape, and were most anxious that it should be taken up by the Government at an early date so as to ensure its passing into law during the year. At present it was necessary for the medical officer to resign before the question of superannuation could be considered by the guardians; and in some cases a very small retiring allowance has been awarded, and occasionally altogether refused. Mr. Trevelyan, in reply, said the subject of superannuation was one in which he had taken a great deal of interest; but it was impossible to state the period at which the Bill could be brought forward, or to give any promise as to the action which would be taken concerning it, or as to the prospects of its success. Personally, after that interview, any doubt he had upon the question had been removed, and he should be glad to give every support he could to Mr. Herbert Gladstone in carrying the Bill into law.

DEATH FROM MORPHIA POISONING.

A case occurred last week showing the danger arising from the persistent use of morphia hypodermically. The deceased, a medical practitioner in the county of Armagh, Dr. W. O. Deacon, medical officer of Richhill Dispensary, died under the following distressing circumstances. This gentleman, who had contracted the habit of using morphia hypodermically, applied to an assistant at a medical hall for some morphia, who made him up a solution containing three grains of the drug, which Dr. Deacon refused to take, as he said that he was in the habit of injecting ten grains twice a day for the last four years. He then made a solution himself containing five grains, and injected it, and died about two hours afterwards. A verdict was returned that deceased had died of heart disease, accelerated by an injection of morphia, which, however, had not been taken with the intention of causing death.

During the December quarter of the past year the deaths registered in the Dublin Registration District exceeded the births by 234, the numbers being 2207 and 2441 respectively.

It has been proposed that a Hospital Sunday Fund should

be established in Cork; and if the suggestion be carried out, it must materially benefit the various charitable institutions in that town.

Dr. George Hickson has been elected, without opposition, coroner for the southern division of the county of Kerry.

Dublin, Jan. 29th, 1884.

BELFAST.

(From a Correspondent.)

EXTRAORDINARY PERSONATION CASE.

ON Sunday week the police conveyed to the Royal Hospital a person known as "John Coulter," who had been employed for twelve years by the Belfast Harbour Commissioners as a labourer, and who had received serious injuries by falling downstairs in a house in the town. The patient, who had sustained a compound fracture of the skull, died in a few hours after admission to hospital; and a medical examination disclosed the extraordinary fact that the deceased was a woman. From the evidence brought forward at the inquest, it would appear that the woman, who was fifty years of age, while employed as a male servant on a farm near Dungannon, was married to the daughter of her master. The pair were married for twenty-nine years, but for the last six lived apart, owing to the dissipated habits of the deceased. No one ever suspected the sex of the woman, and altogether the circumstances of the case are most peculiar. The deceased was of a masculine appearance, with good muscular development, and apparently had never had any family. At the conclusion of the inquest the "wife," in reply to the coroner, who asked, "Who will take charge of and bury the body?" said, "I will take charge of him and bury him."

THE ULSTER EYE, EAR, AND THROAT HOSPITAL.

The thirteenth annual meeting of this hospital was held on January 23rd, in the Board-room, Clifton-street. The report shows that the total number of patients in attendance during the year was 2008. Of these 102 continued in attendance from the previous year, and 215 were admitted as intern patients. The aggregate of attendance at the extern department was 10,889. The total number of days of residence of the 215 intern patients reached 6360, being an average of twenty-nine days for each patient. The financial return, submitted by the hon. treasurer, was very satisfactory. The income was £718 2*s.* 8d., whilst the expenditure amounted to £797 7*d.* The excess of expenditure over income is exceptional, a sum of £129 9*s.* 3d. having been incurred for the repairing, painting, and replenishing of the hospital. In consequence of the large number of patients seeking admission the question of extension of the hospital has come before the committee, and three of the members of the board have taken, and now offer on the same terms as they have obtained it, thirty feet of additional ground, which would serve admirably for the ultimate extension of the hospital. The proposed addition would, it is estimated, cost about £1000. The report is very satisfactory, and shows that, under Dr. McKeown's skilful care, the hospital is doing good work.

THE BELFAST HOSPITAL FOR SICK CHILDREN.

The annual meeting of the friends and supporters of this institution, which has been called the popular charity of Belfast, was held in the hall of the Constitutional Club on January 25th. From the report of the medical and surgical staff, which was read by Dr. Byers, we gather that 313 patients were admitted into the hospital during the past year; of these 195 were medical, and 118 surgical, cases. During the same period 7244 children attended the out-patient department. The exceptional opportunities afforded by this hospital for acquiring a knowledge of the diseases of children are fully appreciated by the senior students, of whom twenty-four are attending the clinique during the present session. During the past summer the interior of the hospital has been painted throughout, and the public, as was stated in the secretary's report, may feel with some pardonable pride that they have now a hospital which can compare on favourable terms with any institution of the kind in the United Kingdom. The funds required to pay the expenses of the painting were for the most part raised by an amateur concert, whereby £118 2*s.* was realised for the object required. This sum, together with donations and a balance from the building fund, was increased to £174 3*s.* 5*d.*, the total amount expended for the painting amounting to £173 6*s.* 3*d.*, thus defraying the whole cost without drawing on the funds of the institution.

Obituary.

CARL VON HECKER.

ALTHOUGH Professor von Hecker died on Dec. 14th, 1882, his death has been a matter of doubt to many of those to whom his name and his works are well known. His death is, however, a matter of fact. Carl von Hecker, who was Professor of Midwifery and Director of the Lying-in Hospital and School of Midwives at Munich, was the only son of a well-known professor of medicine in Berlin, and was born in 1827. His education was gained at Cologne, Heidelberg, and Berlin, at the last of which places he graduated in medicine in 1848. After completing his military service as army surgeon he went to Vienna to study midwifery, and next acted as assistant to Professor von Busch at Berlin, soon gaining the position of a privat docent, and then of assistant-physician. In 1858 (at the age of thirty-one) he was appointed to the chief midwifery chair at Marburg, and a few weeks later to that at Munich. In 1861 he was offered the chair at Göttingen, and in 1863 the same chair at Königsberg, both of which offers he refused, remaining faithful to Munich, with which his name is so closely associated. Von Hecker was one of the very best specimens of a scientific obstetrician. Starting with an upright honourable soul and a thoroughly trained mind, he employed his opportunities first and foremost for the good of others and the advancement of his calling, especially (but by no means exclusively) of the department to which he more particularly devoted himself. Obstetrics in the hands of such a man, untainted by meanness or greediness, becomes a study and a pursuit of great elevation, as it is always one of extreme responsibility. In the literature of his subject he has left so many memorials of himself that enumeration is impossible. All of them bear the impress of his powerful and wholesome mind. Among them may be mentioned the following:—"De Retroversione Uteri Gravidi," 1853; "Klinik der Geburtskunde," 1861 (in association with Professor von Buhl); and "Beobachtungen und Untersuchungen aus der Gebäranstalt, München," 1881 (being the record of twenty years from 1859 to 1879, and of more than 17,000 labours). Besides these, we may point to his numerous and important contributions to the *Archiv für Gynäkologie* (of which he was one of the editors), a most important article in which related to face presentations. Von Hecker was a great authority on forensic medicine, and bore almost every honour which could be conferred on a distinguished physician in Germany whom the State and the sovereign combine in "delighting to honour." He was one of the most respected honorary Fellows of the Obstetrical Society of London. As in medicine he was many-sided, always seeking for analogies throughout the range of its branches, and in no sense a specialist, though chiefly devoting himself to obstetrics, so also he embraced more than medicine and more than science in his sympathies. Like so many of the busiest of his profession, he could not live without a second life outside his daily calling, but depended for his refreshment on music, to which he was devoted, and which, no doubt, helped to brace him for many a precise and laborious investigation. He died of apoplexy, having suffered almost constantly from pain down the left arm for three years, together with considerable impairment of health; but he died in harness. It is doubtful how far our English system of prolonged juniority until advanced middle age (when enterprise is apt to be diverted from investigation towards the pursuit of wealth) is productive of good results. In Germany they do these things differently, and von Hecker can hardly be quoted as an instance in favour of keeping a young man back. Appointed at thirty-one to a post of the greatest importance, his opportunities were all too little for his eagerness. In England most of the best work is done by men still young, while very few indeed continue to do scientific work when they cease to be young. To those who do so continue when their name is already made all honour be given. Most, however, act like the poet's horse, who *senio confectu' quiescat.*

WILLIAM HENRY PARSEY, M.D., F.R.C.P. LOND.

ON Jan. 10th there passed away from among us a man, little known perhaps to the rising generation of medical men, but one who was well known to those of his own, and who was a very dear and valued friend of all those who had the privilege of his more intimate acquaintance.

William Henry Parsey, late chief superintendent of the County Asylum, Hatton, near Warwick, was the second son of John Leveson Parsey, Esq., late of the War Office. He was born April 3rd, 1821. A student of King's College, London, he graduated B.A. London University in 1840, and became M.B. Lond. in 1844. He early chose lunacy as his special field of practice, and in 1847 was appointed assistant medical officer, under Dr. Bucknill as his chief, at the Devon County Asylum. In 1852 he received the appointment of superintendent of the new County Asylum at Hatton, Warwick. There he received the first patients brought to that asylum, there he passed his life, and there, with his life's work surrounding him, he died. When he came to Hatton the asylum was constructed to receive a maximum number of 300 patients; it now contains between 700 and 800. He adopted the non-restraint system of Conolly in its entirety, and so successfully that for many years the asylum under his management was visited by members of the profession from every part of the world. In 1859 he became a Member of the Royal College of Physicians, thus showing how, in the midst of such engrossing work, he was yet able to keep up his general professional knowledge. In 1860 he received the offer of a most important and lucrative colonial appointment in his own specialty, and the offer was couched in the most flattering terms; but in consequence of his deep interest in the asylum, which he had organised from its commencement with so much care, he refused what would have been in some sense a great advantage to him. In 1876 he became president of the Medico-Psychological Association, and delivered an address upon "Better Provision for the Chronic Insane Poor." In 1877 he was unanimously chosen a Fellow of the Royal College of Physicians, an honour he very greatly appreciated.

A few years ago Dr. Parsey had some warnings of failing health, and desired to retire from his heavy responsibilities; but such was the estimation in which he was held by the magistrates of the county that a deputy superintendent was provided for him, and alas! he was induced to remain at his post. Latterly his failing health was more marked, and there is reason to suppose that that enemy of the studious and sedentary, Bright's disease, showed itself. He was, however, so reticent about himself that this was not absolutely known until a few days before his death, which was occasioned by broncho-pneumonia and failure of the heart's action. No man was better known to all who are worth knowing in the county of Warwick, and no man was more esteemed. To his professional brethren he was ever kind and courteous; he was a wise counsellor, and his opinion in his special branch was highly estimated. His attachment to the unfortunate patients placed under his care was reciprocated by them in the most touching manner. In his death our profession has lost one of its many noble characters—perhaps unrecognised by the world at large, but known and appreciated by their intimate friends,—psychological medicine one of its skilled experts, and his friends one who will long live in their memories, and never be wholly replaced.

WM. HAWKINS GARRINGTON, M.R.C.S., L.S.A., J.P.

THERE passed away on the 15th inst., at the advanced age of seventy-nine, after a long and honourable career, at his residence, Southsea, Mr. William Hawkins Garrington. His professional education was acquired at St. Bartholomew's. He obtained the L.S.A. in 1826, and the diploma of the Royal College of Surgeons in 1845. Among his early appointments was that of medical officer to the workhouse at Portsmouth. As one of the oldest practitioners in the district, he was elected to the chair of the southern branch of the British Medical Association. In the year 1859 he was elected Mayor of Portsmouth, an office which he filled with credit to himself and to the satisfaction of the townspeople. He was the senior magistrate for the borough, and, as a mark of the esteem in which he was held by his brother justices, they presented him with his portrait, which is now hung in the council chamber. He enjoyed in a marked degree the confidence and esteem of his patients, and the repute which he had gained in his profession was all the more appreciated because of the kindliness and patience which were always shown both to rich and poor. But Mr. Garrington was most familiarly known and will be best remembered as coroner for Portsmouth, an office which he most efficiently filled during the past nineteen years. Nothing could be more satisfactory than the exhaustive and business-like manner in which his inquiries were conducted.

The large and representative attendance at the funeral was a fitting mark of respect to one who, during a lengthened professional, public, and official career, had gained golden opinions from all classes of the community.

PETER EVERSHED.

ON January 17th was closed the long and honourable life of one of the oldest general practitioners in this country. Mr. Evershed was the son of a medical man, and was born at Billingshurst, Sussex, in 1792. He studied at Guy's and St. Thomas's, and began practice with his father in 1813. He continued to practise for fifty years in the same village, and retired in 1863, when he was succeeded by his eldest son, who died two years after. During the fifty years of his professional life Mr. Evershed did all his journeys on horseback. He was a great lover of nature, a capital horseman, and an enthusiastic foxhunter, riding to hounds usually once or twice a week through the winter, and riding well forward up to his eighty-second year. He had four sons, all medical men; the eldest died early, the second is at Arundel, the third at Hampstead, and the youngest is practising at Bega, New South Wales. He had also two daughters, who survive him.

ROYAL COLLEGE OF PHYSICIANS.

AT an ordinary Comitia on Thursday, Jan. 31st, Sir W. Jenner, President, in the chair, the following gentlemen were elected to fill vacancies in the Council: Dr. Herbert Davies, Dr. Hermann Weber, Dr. Lockhart Robertson, Dr. Moxon. Drs. Ord and Dickinson were appointed examiners for the Murchison Scholarship; and Drs. Stevenson, Corfield, Ballard, and Thorne Thorne were appointed examiners for the certificate in Hygiene.

The report of the Board of Censors upon the circumstances connected with the paper upon Nitrite of Sodium published in THE LANCET by Drs. Ringer and Murrell was read and adopted. The Censors point out that, owing to the want of order and precision in the arrangement of the facts and statements in that paper, it was not surprising that erroneous inferences were drawn from it. But they acquit the authors of the charge of unjustifiable experimentation on the human subject, and consider the profession and the public to be greatly indebted to them for the knowledge of the dose of the drug that can be with safety administered. The Board had also considered the fact that a Fellow of the College had addressed an anonymous letter to the public press reflecting on the propriety of the methods pursued by Drs. Ringer and Murrell in their investigations upon the action of this remedy; and proposed to summon the author of the letter to appear before the Board.

On the recommendation of the Council, it was resolved that the President should invite the President of the Royal College of Surgeons to co-operate in interviewing the Home Secretary with respect to prosecutions by the Public Prosecutor involving medical questions.

A report was received from the Pharmacopœia Committee, which was referred for one month.

BIRKENHEAD BOROUGH HOSPITAL.—The annual meeting of the governors and friends of this hospital was held on the 28th ult. The report stated that the total number of patients treated during 1883 was 8083, of whom 568 were in-patients, being an increase of 81 over those of the preceding year. The daily average of patients in the wards was 37·5. The total ordinary expenses of the year were £2343 2*s.* 5*d.*, a decrease of £31 12*s.* 1*d.* as compared with 1882. The total receipts for the year had been £2331 10*s.* 3*d.*, an increase of £99 7*s.* 5*d.* as compared with 1882.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen passed the Second Examination for the Licence on Jan. 24th:—

Aston, William.
Barrett, W. Amherst Henry.
Blatchley, J. B. Challands.
Clements, William Herbert.
Coker, Owen Cole.
Evered, Arthur Courtenay.
Jones, George.
Little, Ernest Henry Owen.
Melhuish, John.
Oliver, Stuart.
Rees, Morgan John.
Simcock, George.
Watts, Henry Ernest.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th ult.:—

Adams, Charles Edmund, Carno, South Wales.
Carter, Arthur Joseph, Harleyford-road.
Crowle, T. H. Rickards, Campden-hill-road.
Davis, Weston Peel, Ebury-street.
Fuller, G. H. Hingston, New Shoreham.
Gooding, Matthew Richard, L.R.C.P. Lond., Oakley-square.
Harvey, James, Leicester.
Hughes, Edgar Alfred, Bentinck-street.
Johnson, George Herbert, Wath-on-Dearne.
McDonnell, W. Campbell, L.R.C.P. Lond., Stoke-Newington.
Power, Edward Thomas, Denmark-hill.
Robbs, Charles Edward, Powys-square.
Spicer, W. T. Holmes, Saffron Walden.
Styan, Thomas George, Eastbourne-terrace.

The following gentlemen were admitted Members of the College on the 25th ult.:—

Barrett, James William, M.B. Melbourne, Melbourne, Australia.
Carroll, E. R. W. Charles, Wokingham.
Dill, J. F. Gordon, M.B. Cantab., Lower Belgrave-street.
Edlin, Herbert Ebenezer, Manchester.
Edwards, David Gwelym, Denbigh.
Eleyatamby, Mudalitamby, L.R.C.P. Edin., Colombo, Ceylon.
Hawkins, Gerald Cæsar, Teignmouth.
Rogers, W. F. Charles, Falmouth.
Ross, Elsey Fairfax, L.R.C.P. Lond., Sydney, New South Wales.
Taylor, Robert, Mendlesham, Suffolk.
Thomas, Arthur William, L.S.A., Clapham-common.
Wall, George, Carshalton, Surrey.
Webb, Hugh, Buckingham Palace-road.

The following gentlemen were admitted Members of the College on the 28th ult.:—

Bird, Henry, L.S.A., Brampton.
Carnelley, Matthew, Fallowfield.
Evans, Cadwallader Edwards, Bristol.
Gostling, John Harry, Halesworth, Suffolk.
Growse, William, Brentwood, Essex.
Habgood, William, L.S.A., Wimborne, Dorset.
Hudson, Charles Leopold, L.S.A., Bungay.
Lewis, Edward John, L.S.A., Llandovery.
Lilley, James Harris, M.B. Cantab., Atherstone.
Marriner, W. H. Lister, L.S.A., Gunterstone-road.
Pilgrim, Herbert Wilson, L.S.A., St. Augustine's-road.
Samut, Richard Philip, L.S.A., Malta.
Townshend, Edward Bridges, L.R.C.P. Edin., Colchester-street.
Vince, John Foster, L.S.A., Birmingham.
Warner, Frederick Ashton, Kensington.
Wholey, Thomas, L.R.C.P. Lond., Gainsborough.
Woolby, James Bails, L.R.C.P. Lond., Halesworth, Suffolk.

The following gentlemen were admitted Members of the College on the 29th ult.:—

Bean, Charles Edward, L.S.A., Shepherd's-bush.
Benson, Christopher Richmond, L.S.A., Clifton.
Crocker, John Hedley, L.S.A., Gunnislake, Devon.
Cummings, Harold Lytton, L.R.C.P. Edin., Dulwich.
Edgelow, Herbert, Cambridge-street, Pimlico.
Foley, Charles Nicholas, L.S.A., Denbigh-place.
Holroyde, John, L.S.A., Ripponden, Yorkshire.
Irvin, Frederic David, L.S.A., Longridge, near Preston.
Julyan, Francis Harvey, L.R.C.P. Lond., Queen's-park.
Nuttall, Charles Daly, L.R.C.P. Lond., Leicester.
Parry, Herbert Lloyd, L.R.C.P. Lond., Canonbury-park North.
Smith, John Charles, L.S.A., St. John's-wood.
Whish, Martin Samuel, L.S.A., Granby-street.

The following gentlemen were admitted Members of the College on the 30th ult.:—

Armitage, Edward Harris, L.R.C.P. Lond., Brook-street.
Clarke, Charles Frederick, Plumstead.
Dodd, Arthur Herbert, L.S.A., Potherton-road.
Gordon, Thomas Elisha, M.B. Durh., Gower, Swansea.
Mills, Robert, L.S.A., Northampton.
Minns, Allan Glaisyer, L.R.C.P. Lond., Thetford, Norfolk.
Opie, Edward Augustus, M.B. Durh., Plymouth.
Rowlands, William, L.K.Q.C.P.I., Liverpool.
Scutt, Tom, L.R.C.P. Lond., Bere Regis, Wareham.
Stables, Alexander, M.B., C.M. Edin., Nairn, N.B.
Stott, Hugh, L.S.A., Uxbridge-road.
Webster, Alfred George, Huddersfield.

Of the 196 candidates examined during the past and present week, 85 passed to the satisfaction of the Court and obtained their diplomas; 30 passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining 81 failed to reach the required standard, and were referred to their further professional studies. Twenty-seven candidates who passed in Surgery at previous examinations, having subsequently obtained a degree or licence in Medicine or Midwifery recognised by the College, were also admitted Members.

Professor Parker, F.R.S., will commence his course of nine lectures on "Mammalian Descent" on Monday next, in the theatre of the College, at 4 o'clock P.M.

UNIVERSITY OF CAMBRIDGE. — At a congregation held on Jan. 26th the degree of Bachelor of Medicine was conferred on the following gentlemen:—

James Harris Lilley, St. John's; George Edward James Crallan and Stephen T. Salter, Emmanuel; Roland Danvers Brinton, Downing.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 24th:—

Marriner, Wm. Herbert Lister, Gunterstone-road.
Pilgrim, Hubert Wilson, St. Augustine's-road.
Urwick, William, St. George's-road, Pimlico.
Vince, John Foster, Wheeley's-road, Birmingham.

The following gentleman also on the same day passed the Primary Professional Examination:—

Charles Joseph Heath, St. Bartholomew's Hospital.

THE statue of Liebig at Munich has been seriously mutilated by the pouring of some dark corrosive liquid over the left side of the figure.

A PETITION has been presented to the Paddington Vestry opposing the erection of a châlet in the centre of the public roadway near the junction of the Harrow and Edgware Roads.

ON the 30th ult., at the Clerkenwell Police Court, the father of an illegitimate child was committed for trial on the charge of inciting the medical man under whose care the infant was to murder it.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination:—Mr. J. R. White, M.B., of Brentwood (second time); Dr. Bowen Davies, of Llandrindod Wells (fourth time).

CARDIFF MEDICAL SOCIETY.—At the annual meeting the following office-bearers were elected:—President: C. T. Vacher, M.D. Vice-President: C. E. Hardyman. Committee: Dr. Edgar Jones, A. P. Fiddian, M.B., Herbert Vacher, M.D., and Albert Plain, M.B. Hon. Secretary and Treasurer: T. Garrett Horder.

THE WELSH CREMATION CASE.—At the Pontypridd Police Court on Wednesday, Dr. Price, of Llantrissant, was committed for trial at the assizes on charges of attempting to dispose of the body of his child without notice to the coroner, and of unlawfully and indecently attempting to cremate it. He was admitted to bail in £200.

DEATH FROM CHLORAL.—An inquest was held last week at the City mortuary, Golden-lane, by Mr. Payne, on the body of Joseph W. Ward, described as a medical practitioner, who was found dead in bed one morning, and whose death was shown by the medical evidence to have been produced by chloral. There seems to have been no motive for suicide in the case, but the deceased appears to have been accustomed to take chloral to procure sleep, and probably inadvertently administered to himself an overdose of the drug. The verdict was "Death from misadventure."

BRITISH MEDICAL BENEVOLENT FUND.—The annual general meeting of subscribers to this fund was held on Jan. 15th, Dr. G. C. Jonson taking the chair in the unavoidable absence of the president, Sir George Burrows. The financial statement was submitted, and the annual report of the committee read by the treasurer, from which it appeared that the donations during the year 1883 had amounted to £542 6s. 5d., the subscriptions to £1376 6s. 4d., making a total of £1918 12s. 9d. The disbursements during the year had been: in grants £2229, nearly £100 more than in any previous year; in annuities £1062—a total of £3291. At the last meeting of the year the balance at the bankers was entirely exhausted, and every farthing at the command of the committee voted away. During the year grants were made to 190 applicants, after careful inquiry, ranging from one of £3, to enable an assistant to take a situation, to one of £24, in monthly instalments of £4, by means of which the use of his furniture was secured to an aged practitioner. Dr. Milson and Mr. Kiallmark joined the committee; and

Dr. G. C. Jonson and Sir Edwin Saunders were elected vice-presidents of the fund.

THE CARLYLE BEQUEST.—By the death of Mrs. Tait, late of York-terrace, Regent's-park, the following medical charities become entitled, under the above-named bequest, to the sums specified:—Royal Infirmary, Lunatic Asylum, and Lock Hospital, £2000; Royal Southern Hospital, £2000; Northern Hospital, £2000; North, South, and East Dispensaries, £2000; Infirmary for Children, £2000; Bootle Borough Hospital, £1000; Consumption Hospital, £1000; Eye and Ear Infirmary, £1000,—all of Liverpool. St. George's Hospital, the Brompton Hospital for Consumption, and St. Mary's Hospital, £2000 each.

HUNTERIAN SOCIETY.—The following is the list of office-bearers elected for the year:—President: Dr. Robert Fowler. Vice-Presidents: Dr. Galabin, Mr. Clement Lucas, Dr. Major Greenwood, Mr. W. C. Toulmin. Treasurer: Dr. Fotherby. Trustees: Dr. Fotherby, Mr. D. De Berdt Hovel. Librarian: Dr. Burchell. Orator: Mr. James E. Adams. Secretaries: Dr. Herman, Mr. Charters J. Symonds. Council: Mr. M. Brownfield, Mr. F. M. Corner, Mr. E Dukes, Mr. T. R. Fendick, Dr. E. G. Gilbert, Mr. P. Y. Gowland, Dr. Talbot King, Dr. Rasch, Mr. H. A. Reeves, Mr. W. Rivington, Mr. G. J. B. Stevens, Mr. R. G. Tatham.

CORONERS' SALARIES.—The Committee of Accounts and General Purposes, in their report presented at the meeting of Middlesex magistrates last week, recommended the payment of the following coroners' accounts:—Sir John Humphreys: salary, £551 18*s.* 8*d.*; disbursements, 301 inquisitions, £483 15*s.* 6*d.* Dr. George Danford Thomas: salary, £524 18*s.* 4*d.*; disbursements, 248 inquisitions, £508 8*s.* Dr. Diplock: salary, £200; disbursements, 132 inquisitions, £253 17*s.* Mr. W. J. Payne: salary, £13 12*s.* 4*d.*; disbursements, 7 inquisitions, £16 1*s.* 6*d.* Mr. C. St. Clare Bedford: salary, £125; disbursements, 61 inquisitions, £132 8*s.* These sums make a total of £2809 19*s.* 4*d.* The salaries are for the quarter ending Dec. 31st last.

THE HOSPITALS ASSOCIATION.—The following will be the order of proceedings at the inaugural meeting of this Association, which is to take place in the Egyptian Hall of the Mansion House to-day (Friday):—The Lord Mayor will take the chair at 3 o'clock, and after a statement by Major Ross, M.P., the chairman of the Provisional Committee, in explanation of the objects and scope of the proposed Society, resolutions will be submitted to the effect that it is desirable to establish, under the name of the Hospitals Association, an organisation for the consideration and discussion of matters connected with hospital management; and that the preliminary arrangements connected with the establishment of the Association, including the appointment of the first council, be entrusted to the Provisional Committee.

LIVERPOOL CHILDREN'S INFIRMARY.—The annual meeting of this institution was held on the 22nd ult. The thirty-second annual report, read by the secretary, stated that the children received into the infirmary during the past year numbered 904, against 730 in the previous year; while, notwithstanding the very large totals in 1882 for out-patients and daily attendances, a further large increase had again to be recorded, the out-patients numbering 12,153, against 10,602 in 1882, and the daily attendances amounting to 30,876, as against 29,464 in 1882. Space has been made available for ten more beds, which, however, are unoccupied for want of funds. The total income from all sources during 1883 was more than £600 below that of 1882, and also more than £600 short of the expenditure.

LIVERPOOL ROYAL INFIRMARY.—At the annual meeting of the trustees of this institution held on the 28th ult., it was stated that the building fund amounted to £82,000, and that, though no definite arrangement had yet been made in reference to a site for the new building, the committee hoped that before another year had passed away some progress would be made. During the year 2489 persons were received into the infirmary, and 9282 out-patients were treated and relieved. The average number of patients in the house was 243. The receipts amounted to £12,048 3*s.* 4*d.*, and the expenditure to £12,860 14*s.* 2*d.*, which shows a deficiency of £812 10*s.* 10*d.*, and a considerable increase of debt—viz., £4544 9*s.* 4*d.* In conducting the Lock Hospital, £891 1*s.* 7*d.* was expended, against £857 7*s.* 11*d.*; the number of cases treated was 590, the falling off being entirely in females; but the average number of beds occupied was 37—only one less than last year.

THE SWINEY PRIZE.—The Joint Committee of the College of Physicians and the Society of Arts have awarded this prize to Professor Sheldon Amos, M.A., for his work entitled "A Systematic View of the Science of Jurisprudence." The prize, which consists of a silver goblet of the value of £100, and gold coin to the same amount, is presented every fifth anniversary of Dr. Swiney's death to the author of the best published work on Medical Jurisprudence. This is the eighth award of the prize.

THE HIND FUND.

THE following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—

Harvey, J. D'Arcy, Esq., Staff Surgeon R.N.	£1	1	0
Olivier, R. W., Esq.	2	2	0
Shepard, H. D., Esq.	3	3	0
W. H.	5	5	0

Subscriptions may be paid to Dr. Richardson, F.R.S., (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, Hon. Treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street; and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, Hon. Secretaries; or to Messrs. Coutts & Co., Strand.

THE ROGERS TESTIMONIAL.

To the Editor of THE LANCET.

SIR,—May I again trouble you to insert the enclosed twelfth list in this week's LANCET, and oblige, yours truly,

J. WICKHAM BARNES.

Poor-law Medical Officers' Association, 3, Bolt-court, Fleet-street, London, Jan. 30th, 1884.

Jas. Cornwall, Esq., F.R.C.S., Fairford, Gloucestershire, £1 1*s.*; D. B. Balding, Esq., F.R.C.S., Royston, Herts, £1 1*s.*; A. A. Jackson, Esq., Birmingham, £1 1*s.*; W. Pearse, Esq., St. Tudye, Bodmin, £1 1*s.*; M. Partridge, Esq., Coventry, 10*s.* 6*d.*; John Davies, Esq., 91, New North-road, 10*s.* 6*d.*; F. Haward, Esq., Halesworth, 10*s.*; Dr. J. Woodman, Exeter, 5*s.*

THE BOWER AND KEATES CASE.

THE EIGHTH AND FINAL LIST.

THE following have sent one guinea each:—

T. A. Carter, M.D.; A. E. Cumberbatch, F.R.C.S.; G. Borlase Hicks, Esq.; J. Irving, M.B.; T. J. Maclagan, M.D.; W. Pearse, Esq.; J. B. Story, M.B.; W. L. Underhill, F.R.C.S.

The following have sent half a guinea each:—

W. Curtis Hugman, F.R.C.S.; G. Knapton, Esq.; C. Latham, Esq.; W. H. Latham, Esq.; A. C. Tunstall, M.D.

The following have sent ten shillings each:—

R. Ives, Esq.; R. J. Pye-Smith, F.R.C.S.

The following have sent five shillings each:—

W. Grant, M.B.; B. Harvey, Esq.; H. Hick, Esq.; W. A. Maybury, M.D.; M. F. Ryan, Esq.

F. A. MAHOMED, R. W. BURNET, } Hon. Secs.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

APTHORP, F. W., M.R.C.S., L.R.C.P., has been appointed Medical Officer and Public Vaccinator for the Manhood District, Westhampnett Union, vice Thomas Dutton, M.D., M.B., M.R.C.P., resigned.

BOOTH, E. H., M.B.Lond. (of Guy's Hospital), has been appointed House-Physician to the Seamen's Hospital, Greenwich.

CROCKER, J. HEDLEY, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to Charing-cross Hospital.

DODSON, ARTHUR E., L.R.C.P.Ed., L.S.A.Lond., has been appointed House-Physician to Charing-cross Hospital.

FELIX, EDWARD L., L.S.A.Lond., has been appointed Resident Obstetric Officer to Charing-cross Hospital.

GAMGEE, ARTHUR, M.D., F.R.S., has been appointed Physician to the Manchester Hospital for Consumption and Diseases of the Throat.

GREENWOOD, CECIL D., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Yoxall District of the Lichfield Union.

HOWARD, W., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the South Weiney District of the Downham Union.

HUDSON, C. LEOPOLD, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Resident Physician's Assistant to the Middlesex Hospital.

HUSSEY, R. LEE, L.S.A.Lond., has been appointed House-Physician to Charing-cross Hospital.

JAGO, EDWIN OSBORNE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Cadishead District of the Barton-upon-Irwell Union.

KING, ARTHUR, M.B., C.M.Ed., has been appointed Medical Officer for the Aspley Guise District of the Woburn Union.

LUCAS, ARTHUR, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, Woburn Union.

MACDOWELL, CHARLES WILLIAM, M.D.T.C.D., F.R.C.S.I., has been appointed Medical Officer to the Carlow Workhouse and Fever Hospital.

MEEHAN, NICHOLAS J., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer to the New Ross Union Dispensary, vice Mullin, deceased.

MOLONY, FITZJAMES, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Porlock District of the Williton Union.

MOLYNEUX, J. FRANCIS, M.R.C.S., F.R.C.P.Ed., has been appointed House-Surgeon to Charing-cross Hospital.

WHITE, WILLIAM ROBERT, M.D., C.M.Aber., M.R.C.S., has been appointed Medical Officer for the Wadhurst District of the Ticehurst Union.

Births, Marriages, and Deaths.

BIRTHS.

BATCHELOR.—On Nov. 30th, 1883, at Venterstad, South Africa, the wife of Dr. George A. Batchelor, of a son.

BROWNRIGG.—On the 25th ult., at Hill-house, Gravesend, the wife of J. Annesley Brownrigg, M.A., M.D., of a daughter.

CORFIELD.—On the 27th ult., at Bolton-row, Mayfair, the wife of Professor Corfield, M.A., M.D.Oxon., of a son.

MILLER.—On the 24th ult., at Horwoods, Basingstoke, the wife of F. D. Miller, L.R.C.P.Lond. &c., of a daughter.

WHITMORE.—On the 27th ult., at Ovington-gardens, the wife of William Beach Whitmore, M.B., of a daughter.

MARRIAGES.

DELÉPINE—ROSE.—On the 23rd ult., at St. John the Evangelist's, Westminster, by the Rev. Canon Furse, Dr. Sheridan Delépine, eldest son of Monsieur A. Delépine, of Versailles, France, to Florence, eldest daughter of Frederick Rose, of Page-street, Westminster.

DUKE—PARR.—On the 23rd ult., at Selborne, Hants, Surgeon-Major Duke, Royal Military College, Sandhurst, to Frances Elizabeth, third daughter of Harington W. Parr, Esq., Governor of Lancaster Castle, and formerly of H.M. Colonial Service.

HALEY-CARLIN.—On the 17th ult., at St. Michael and All Angels', Kensington, London, W., by the Rev. Edward Ker Grey, LL.D., Vicar, William Henry Haley, L.R.C.P., L.R.C.S.E., of Wakefield, Yorkshire, to Alice Jane, fifth daughter of the late Matthew Carlin, of Keyingham, Holderness.

MORTIMER—DAVEY.—On the 23rd ult., at St. Mary's Church, Walmer, Fleet-Surgeon Edward Townsend Mortimer, Principal Medical Officer Royal Marine Depôt, Walmer, to Ethel Margaret, second daughter of R. Staines Davey, M.D., J.P., of Hill House, Walmer, Kent.

PENNY—FRIPP.—On the 22nd ult., at St. Stephen's Church, Hampstead, Edward Penny, M.D., of Pinxton, Derbyshire, to Annie Dalton, elder daughter of Alfred Downing Fripp, Esq., R.W.S.

DEATHS.

FOOTE.—On the 24th ult., at Kington, Herefordshire, Gustavus Foote, M.R.C.S., aged 59.

HARLEY.—On the 27th ult., at his residence, The Lawn, Haverstock-hill, Thomas Harley, M.R.C.S., aged 65.

POCOCK.—At Mackay, Brisbane, from congestion of the lungs, after a short illness, Edward William Pocock, M.R.C.S., aged 38.

SINCLAIR.—On the 23rd ult., at Ely, Cambridgeshire, George Murray Sinclair, L.R.C.P.Ed., L.R.C.S.Ed., aged 44.

WOOD.—On the 28th ult., at Enniskillen, after an illness of only a few hours, Surgeon-Major Thomas Wood, Army Medical Department.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, Feb. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Parker, "On Mammalian Descent."
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual Communication by Mr. G. W. Parkinson, Mr. Frederick Canton, and Dr. W. St. George Elliott.—The President (Mr. J. S. Turner) will read his Introductory Address.
MEDICAL SOCIETY OF LONDON.—Third and last Lettsomian Lecture: Mr. R. Brudenell Carter, "On Modern Operations for Cataract."

Tuesday, Feb. 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
MEDICO-PSYCHOLOGICAL ASSOCIATION.—3 30 P.M. Council Meeting.—4 P.M. Dr. Savage, "On Constant Watching of Suicidal Cases."—Dr. Gasquet, "On some of the Mental Symptoms of Ordinary Brain Disease."—Dr. Herbert Major, "On the results of the Collective Record of the Causation of Insanity."
ROYAL INSTITUTION.—3 P.M. Professor Geikie, "On Scenery of the British Isles."
PATHOLOGICAL SOCIETY OF LONDON.—The following specimens will be shown:—Sporadic Cretinism; Fœtal Rickets (? Cretinism); Epithelioma of Foot after Injury; Fibroid Disease of the Heart; Carcinoma of the Œsophagus; Growth from the Bladder; Calculus impacted in a Sac in the Bladder; Interstitial Disease of the Ovary; Spinal Cord of Infantile Paralysis; Malignant Disease of the Mesentery; Pigmentary Disease of the Tongue (living specimen).

Wednesday, Feb. 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Parker, "On Mammalian Descent."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Dr. Matthews Duncan will show Dr. Aveard's Rest.—Specimens will be shown by Dr. Galabin and Dr. Horrocks.—Mr. Alban Doran, "On the Relation of Prolapse of the Vagina to Hernia, illustrated by two Pedigrees."—Annual Meeting: The President (Dr. Garvis) will deliver the Annual Address.

Thursday, Feb. 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
HARVEIAN SOCIETY.—8.30 P.M. Mr. Edmund Owen, "On a Case of Sub-Periosteal Hæmorrhage in a Child suffering from Scurvy (Acute Rickets)."—Mr. Noble Smith, "On Deformities of the Fingers and Toes."
ROYAL INSTITUTION.—3 P.M. Professor Pauer, "On Music for the Pianoforte," &c.

Friday, Feb. 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Parker, "On Mammalian Descent."
ROYAL INSTITUTION.—8 P.M. Mr. G. J. Romanes, "On the Darwinian Theory of Instinct."
CLINICAL SOCIETY OF LONDON.—Mr. A. Pearce Gould, "On Obliterative Arteritis accompanied by Gangrene."—Dr. Hadden, "On Obliterative Arteritis ending in Recovery."—Dr. Burney Yeo, "On Primary Syphilis, with Acute Pyrexia."—Dr. Mansel Moullin, "On Thrombosis of the Vena Cava."—Living Specimens: Keloid on Chest, Dr. Radcliffe Crocker; Acne Variioliformis, Dr. Stephen Mackenzie.

Saturday, Feb. 9.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Morley, "On Life and Literature under Charles I."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Jan. 31st, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 25	29·73	W.	43	40	..	49	39	..	Cloudy
,, 26	29·32	W.	41	39	..	50	39	·12	Cloudy
,, 27	29·11	S.W.	37	35	..	41	35	·10	Stormy
,, 28	29·54	W.	48	35	..	46	33	·31	Snowing
,, 29	29·89	W.	35	45	..	55	37	·16	Raining
,, 30	29·84	W.	53	52	..	57	43	·02	Raining
,, 31	29·86	S.W.	50	50	..	50	45	·08	Raining

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

SUICIDES IN PARIS IN 1883.

THE total number of suicides or attempted suicides in Paris during the past year was 542, or 63 more than in the previous twelvemonth. Out of this total 217 suicides were committed by the use of firearms, 148 by drowning, 81 by hanging, and 37 by burning charcoal in a closed room. The remaining 51 suicides sought death by jumping from a height, by poison, or by placing themselves in front of trains or vans.

Mr. Craeroft.—1. The article was not published in THE LANCET.—2. We do not issue a general index.

A Student.—The subject is referred to in our current number.

THE CLERGY AS "JUSTICES" IN CASES OF LUNACY.

To the Editor of THE LANCET.

SIR,—In calling attention to Baron Dimsdale's remarks on this subject you open up a matter worthy the attention of the Lord Chancellor and of statesmen generally. The fact is evidently not generally known that pauper lunatics are regularly received into county asylums on "orders" signed by the "chaplains of workhouses" from which the patients are sent. I have looked into the matter, and there cannot be the slightest doubt as to the legality of "orders" so signed. Under the Lunacy Act of 1845 (8th and 9th Vic., cap. 100, sec. 114) it would have been illegal to detain a patient on an "order" signed by the chaplain of the workhouse, but the Act of 1853 is clear and unmistakable on the point. By 16th and 17th Vic., cap. 97, sec. 132, it is set forth that "officiating clergymen of the parish," when it occurs in this Act, "shall include the chaplain of the workhouse of the same parish, or of the workhouse of a union to which such parish belongs." Thus the chaplain of a union workhouse has power to sign, not only an "order" for the reception into an asylum of a pauper lunatic at that time an inmate of the workhouse, but he can sign an "order" for the reception of any pauper lunatic in any parish of the union to which the workhouse belongs; therefore patients for whose reception "orders" so signed are and must be detained so long as the law remains as it is. It will be admitted by all—except perhaps the officials under notice—that this is not as it should be; but there are so many matters requiring attention in the existing Lunacy Acts that it would be an almost hopeless task to begin tinkering them, and for this reason they will probably remain as they are until a clean sweep be made of them and we are given in their place a new code.

I am, Sir, yours faithfully,

January 23rd, 1884. S. A. K. STRAHAN, M.D.

*** We are quite prepared to believe anything of the law relating to lunatics and asylums. To clear up one small matter, recently, we had to make some thirty references to the Statute Book. Of course it was never intended that the chaplains of workhouses should have this power, but that they do exercise it there can be no question.—ED. L.

THE BRENTFORD BOARD OF GUARDIANS AND EXTRA FEES.

Dr. Tily.—Our correspondent ought to be paid at least £2 for such good results in such a troublesome case—dislocation of the humerus, with fracture, requiring chloroform, and extending over two months. But public bodies sometimes fancy themselves entitled to be unjust, and we fear there is some precedent or authority in the circulars of the Central Board for the action of the guardians.

F.R.C.P.—The large mortality occasioned by whooping-cough in this country would certainly justify its being regarded as a "dangerous infectious disorder" under the Public Health Act, 1875, if medical considerations were alone in question. But in view of the difficulty of determining at what stages of the disease infection commences and ceases, and having regard to the general feeling of the public as to this disease, we doubt whether it would be often possible to obtain a conviction for exposure of a child suffering from it. The diseases as to which Parliament has granted powers under local Acts in connexion with compulsory notification of infectious disease may be taken to be those which the Government and the public are at present prepared to regard as "dangerous," and only one such Act contains any reference to whooping-cough—namely, the Act relating to the borough of Preston. But in a report on the subject recently submitted to Parliament on the working of these Acts, the corporation of Preston suggest the omission of that disease from the list.

Vita.—Dr. Heneage Gibbes' "Practical Histology" will, we believe, afford the information desired.

Mr. A. Watt.—We have not preserved back numbers of the publications mentioned.

UNDER WHAT CIRCUMSTANCES CAN NURSES ENFORCE PAYMENT OF FEES?

To the Editor of THE LANCET.

SIR,—I want to know the opinion of yourself and the profession generally upon the following case:—

Mrs. A——, who expected to be confined about Nov. 25th, engaged a nurse for that date; the nurse, however, said that she would not leave her last case until Nov. 20th, but would come as soon after that date as Mrs. A—— might wish. It happened, however, that Mrs. A —— was taken in labour on Oct. 25th, a month sooner than she expected. She therefore, knowing that she could not obtain the services of the nurse until after the 20th of the next month, searched for a nurse until she found one. The next day her husband wrote to the nurse saying that his wife was confined, and that he gave her the earliest notice of the fact to enable her to obtain another engagement. This brought a visit from the nurse, who was attending a patient, but who stated that she could have left her and have come to Mrs. A—— if she had been sent for. Mrs. A—— expressed regret at the misadventure, and offered the nurse £2 12*s.* 6*d.*, half the fee agreed upon, but she refused to accept it, and took out a summons in the county court. Mrs. A—— had the advice of a solicitor, who, having taken counsel's opinion, advised her to pay the full fee, £5 5*s.*, into court, with expenses, as in his opinion the judge would have decided in the nurse's favour.

There is no doubt of the fact that the nurse very distinctly stated that she could not come to Mrs. A—— until after Nov. 20th, as she was nursing a lady, and would not complete her month's attendance upon her until that date.

This is a case of some importance, and I should like to know the law of, and also the usual custom followed in, similar cases.

I am, Sir, your obedient servant,

St. John's-wood, Jan. 22nd, 1884. HORACE S. HOWELL, M.D., &c.

*** It is to be regretted that the case was not taken to the County Court. We think Mrs. A——, under all the circumstances, did what was right in offering half the fee, and that the nurse did wrong in not being satisfied with it.—ED. L.

A Sufferer of Twenty Years' Standing.—We do not prescribe.

Excelsior.—Very soon.

"LODGING LUNATICS."

To the Editor of THE LANCET.

SIR,—Permit me to support strongly your paragraph of Jan. 19th on the above subject. A case of the commissioners—or rather one commissioner, whom I need scarcely name—"swooping down on an unoffending person with all the magnified might of office" has recently come before me and before several others of the profession, who feel very strongly on the matter. One certified case was in the house I allude to, and other nerve cases of ordinary character were received, amongst them one that had been fairly well and comfortable for many years. Doctors had refused to certify the case, but a commissioner recently came, and, after a brief interview, insisted on the necessity of certificates, and used strong words of threat and caution, causing the greatest alarm and annoyance. As a result, arrangements were made for removal to an asylum, a long railway journey undertaken, four men of standing consulted, who all refused to sign, and, after all this expense and anxiety, things necessarily remain as before. This is no isolated instance, and I submit that such action of the commissioners ought to be strongly reprobated by the profession.—I am, Sir, yours truly,

January, 1884. INDIGNANT.

Surgeon-Major Evatt.—We think the medical student is already too overweighted, and we should be unwilling to add to the demands upon his time and his labour such a course as our correspondent suggests. It has many points in its favour, but these are, in our opinion, more than counterbalanced by the drawbacks.

THE TENDER MERCIES OF A SURVIVING PARTNER.

To the Editor of THE LANCET.

SIR,—May I ask you for your opinion on the following case? I am in no way personally interested, but the facts have come to my knowledge owing to my friendship with one of the parties.

X is in practice in a suburban district; Y (an old college friend) joined him in partnership about four years ago, paying £1000. The practice increases rapidly until Y dies, last September, having been ill some months. According to the deed of partnership, the survivor is to have three months to decide whether he will take the share; if he does not do so, it is then to be thrown on the market. X waits this three months, using the interval to work up the patients. He then says that he will neither buy the share himself nor take a partner in succession to Y. The only conscience-money he offers is the proposal that the late partnership of X and Y should be prolonged three months after its legal dissolution by Y's death, the widow to sell the right of living in Y's house for what she can get. The proportion that this will bear to the value of the share can be readily imagined. X also maintains an assistant in close proximity to Y's house, to look after the patients in that part of the neighbourhood. The result of this is that X retains Y's capital and virtually the whole of the practice, and that Y's widow and five orphans lose four-fifths of what they would have had to depend on.

The above is a plain statement of the facts, and X could not deny one of them. What is your opinion of his conduct?

I remain, Sir, your obedient servant,

January, 1884. Z.

*** We must still hope that this is a one-sided statement. If it be not so, the aid of law should be invoked to at least expose such heartless injustice.—ED. L.

D. B. A.—We must decline to answer the question, which should be referred to the medical attendant.

DIPHTHERIA AND SUCTION OF TRACHEOTOMY TUBE.

To the Editor of THE LANCET.

SIR,—Years ago I had the good fortune to save a child's life from diphtheria by tracheotomy, suction of the tube, and artificial respiration. Since I have had wife and children I have often reflected what would be my duty if again placed in similar circumstances of danger and difficulty. To-night I tried to gain sleep by reading vol. iii. of Payne's novel "Kit," which roused up the old questionings, and the idea occurred to me, Why not use the aspirator? I have just detached the needle nozzle and glass tube from my aspirator and put a tracheotomy tube in their place, and find I could take up the thick white of an egg, "pleno rivo," but the entrance stopcock requires to be larger, and in practice the tracheotomy tube must project a little beyond the tying-in plate to fit the aspirator tube to. Will any surgeon having post-mortem facilities kindly try the idea, and greatly oblige a country brother who is shut out of such opportunities?

I am, Sir, yours faithfully,

Framlingham, Jan. 12th, 1884. GEO. E. JEAFFRESON.

Dr. Illingworth.—The letter has unfortunately not been preserved. It was either misread or our correspondent committed a *lapsus calamis*.

Mr. Pittock (Margate).—We have very lately called attention to the matter.

INTRACTABLE HEARTBURN, &c.

To the Editor of THE LANCET.

SIR,—Would some experienced brother practitioner prescribe or suggest some remedy for the above, from which I have suffered for the last four years, resisting most of the usual remedies? With the heartburn I have acidity, slight constipation, small offensive fæces, itching of the skin, and occasionally giddiness. The following have not benefited me:—Mercurial pill, calomel, euonymin, perchloride of mercury, mineral acids, tonics, strychnia, syrup of the hypophosphites, saline purgatives, and acids before meals. The only thing that relieves me is an alkali for half an hour or so. I have passed through six years' depression and anxiety, otherwise my health is good. I am out riding and driving every day, having an easy country practice. My appetite is moderate and tongue clean. The soil here is a damp clay. The only diet which does not produce the above symptoms is milk and arrowroot.

I am, Sir, yours truly,

Jan. 22nd, 1884. A YOUNG PRACTITIONER.

Messrs. Lippincott & Co. (Philadelphia).—The books named have been received.

C. M. J.—We have no acquaintance with the firm.

THE "BOOK OF HEALTH."

To the Editor of THE LANCET.

SIR,—Pardon me for soliciting your attention to the fact that in your notice of an article in the "Book of Health," which appeared in THE LANCET of Jan. 12th, it is described as the work of Sir Joseph Fayrer, whereas it is the joint production of that physician and of Dr. Joseph Ewart.

I am, Sir, yours faithfully,

London, Jan. 17th, 1884. NORMAN CHEVERS.

Eustachian Tube.—The medicated steam is taken into the mouth in the same way as tobacco smoke is. The Valsalvan method (which consists in making a forcible expiration, the mouth and nostrils being closed) is then practised. The medicated steam or vapour is thus forced through the Eustachian tubes into the tympana.

"RISKS INCURRED BY MEDICAL MEN."

To the Editor of THE LANCET.

SIR,—Your correspondent under this heading in your last issue appeals to the public, and I beg to be permitted to say a few words on the subject of his letter. Perhaps it is because your correspondent is, as he describes himself, an old member of the profession that he appears somewhat to lose sight of the public, in its proper sense of society at large. I venture to think the medical profession, nay, that any profession, would commit a grave error by attempting to secure special protection or privilege. I submit to your correspondent that the best interests of any individual, or corporation, or society, may safely be left to the protection of the law. Let medical gentlemen frankly rely upon their countrymen and the law of the land, and they need not fear. I hope your correspondent, and men old and honoured in the profession as he is, will enforce this on their younger brethren. Trust the public; do not shrink from any inquiry. The disposition of the public, in spite of what may sometimes be said to the contrary, is to trust and honour medical practitioners. Let them only understand this thoroughly, and reciprocate the feeling, and they can have nothing to fear in the pursuit of their duty. If a layman may speak his thoughts freely, I will add that the medical profession appears hardly conscious of the place it fills in the public regard. Indeed, the anxiety of responsible members of the profession may fairly be lest their brethren should forget the faith and duty which this trust of the public imposes upon them. I think it a little unfortunate that your correspondent should have named any particular case, because his valuable remarks should be for the consideration of the public generally. His letter undoubtedly has created considerable interest, for the honour and condition of the medical profession are of the very highest importance.

I am, Sir, your obedient servant,

January 16th, 1884. READER.

Mr. Simpson, M.B. (Perth).—We do not see anything objectionable in the paragraph referred to. The subject is noticed in the current letter of our Scottish correspondent.

Dr. Ward Cousins.—Thanks. We had a notice already in type.

PERTH INFIRMARY.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 19th I observe a communication from your Scotch correspondent on matters pertaining to the Perth Infirmary, which I regret to say are inaccurate in several particulars, and calculated to give a false impression of the conduct of the medical staff to the young medical men of Perth. I shall not expatiate, however, on this point, but confine my observations to your correspondent's remarks on Dr. Stirling's resignation. I emphatically deny that Dr. Stirling was ever regarded by the Perth Infirmary staff as its chief, or had any just reason to be so regarded, the truth being that we had no chief, each acting a thoroughly independent part, and fully entitled to do so. Nor do I fear to appeal to the medical men of Perth to confirm the accuracy of this statement. It is seldom safe to make invidious comparisons. Had your correspondent borne this in mind he would have saved me from the very unpleasant duty of addressing you on this subject.

I am, Sir, your obedient servant,

JAMES P. BRAMWELL, M.D.,
And one of the Visiting Medical Officers,

Perth, Jan. 22nd, 1884. Perth Infirmary.

*** The matter is referred to in "Scottish Notes" this week.—ED. L.

"POISONING BY CARBOLIC ACID."

To the Editor of THE LANCET.

SIR,—We notice in your issue of Jan. 19th a case of recovery after internal administration of four drachms of "30 per cent. of crude carbolic acid." We are of opinion that the absence of fatal results must be chiefly attributable to the fact that the 30 per cent. of carbolic acid was in combination with tar oils, and thus rendered incapable of being absorbed by the tissues or assimilated in the stomach. From a similar cause or reason the so-called "30 per cent. carbolic acids" are found practically inert as disinfecting agents.

We had an analogous case reported to us last August, and examined the article administered, which we found to consist largely of tar oils. We shall be happy to furnish your correspondent, "F. H. O.," with the name and address of the medical man who attended the case.

We are, Sir, yours obediently,

Manchester, Jan. 20th, 1884. F. C. CALVERT & Co.

TREATMENT OF TYPHLITIS.

To the Editor of THE LANCET.

SIR,—The nature and treatment of typhlitis are very carelessly dealt with in the books I have consulted. There is, however, in THE LANCET of Sept. 21st, 1878, an admirable article on Perityphlitis, by Dr. Stephen Mackenzie, which deals with the subject in a concise and thoroughly practical manner.

I am, Sir, your obedient servant,

Seaford, Sussex, Jan. 19th, 1884. B. J. TUCK.

EFFECTS OF SUDDEN CHANGES OF WEATHER UPON EPILEPTICS.

To the Editor of THE LANCET.

SIR,—The conditions accompanying the extremely rapid fall of the barometer of Saturday last were attended with disastrous results to patients suffering from epilepsy. Not only were bad cases rendered temporarily worse, but many who were in process of recovery, and had enjoyed periods of immunity from attacks varying from two to twenty months, succumbed to the unfavourable climatic effects of the past week. The important influence of rapid changes of weather upon epileptics has, I think, been insufficiently noted. Dr. Allen Hamilton, of New York, in his work on nervous diseases, calls attention to the fact that epileptic seizures are far more likely to occur at these unsettled periods. In what manner these rapid changes act—whether the circulation is influenced by the sudden failure in the atmospheric pressure, or whether, as seems more probable, the disturbance of the electrical balance produces nervous derangement—is uncertain. I should be glad if any practitioner who may have experienced similar results during the past week would communicate any such facts to me, either personally or through the medium of your paper.

I am, Sir, yours faithfully,

Claremont, Malvern, Jan. 29th, 1884. WALTER TYRRELL.

N. S.—1. Surgery, Erichsen.—2. Pathology, Billroth.—3. Eye, Lawson. 4. Surgical Anatomy, Treves.

"ALCOHOL FOR STUDENTS."

To the Editor of THE LANCET.

SIR,—Allow me, with all deference and respect, to take exception to the words "the teetotal craze" in the concluding paragraph of your interesting annotation on the above subject in your issue of the 26th ult. Surely the day has gone by when it is right or fair, or even scientific, to speak of total abstinence in this way. I hope the time may not be far distant when the great majority of clergy, ministers, and medical men will range themselves on the side of total abstinence, not only for their own sake, but as an example to their weaker brethren, according to the apostolic precept. Sir William Gull, Sir Andrew Clark, Sir Henry Thompson, Dr. Richardson, and other eminent men have given no uncertain sound in this matter. Those who abstain find themselves all the better for their self-denial for the sake of others; but many men, in good health, continue to take alcohol in some form because they like it, and selfishly refuse to give it up for the good of others, forgetting that we are all in a very real sense "our brother's keeper." Any utterance of yours, as the chief organ of the profession, comes with authority and *ex cathedrâ*, and that is my reason for troubling you with this note.

I am, Sir, yours faithfully,

JOHN ROSE, M.D.,

Chesterfield, Jan. 26th, 1884. Staff Surgeon, Royal Navy.

Bus.—The advisability of the procedure would almost wholly depend upon the amount of the dose administered.

"SCARLET RHEUMATIC FLANNEL."

To the Editor of THE LANCET.

SIR,—Had your correspondent, Mr. O. Hehner, published the facts and information contained in THE LANCET of Jan. 19th as an answer to "Rheumatic" prior to my communication, the tests for arsenic in scarlet flannel, &c., would not have been undertaken by me. From the letter written by "Rheumatic," I inferred a simple and easily applied test for arsenic was required, and seeing constantly both medical and chemical students discovering readily arsenic in different forms by the test I quoted, its value is still apparent to me.

I am, Sir, yours truly,

January, 1884. JOHN WOODLAND.

D. H. B.—Leiter's tubes are soft leaden tubes coiled into various shapes through which water at any temperature can be passed from a vessel above the bed into a vessel under the bed. They are to be obtained from Messrs. Krohne and Sesemann, or any good instrument maker.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

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LETTERS, *each with enclosure*, are also acknowledged from—Dr. Oliver, Harrogate; Messrs. Bebby and Co., Liverpool; Mr. Davies, Aberdare; Messrs. Damant and Son, Cowes; Mr. Bigg, London; Mr. Armstrong, Rochdale; Mr. Brown, Westgate-on-Sea; Mr. Lisg, Birmingham; Mr. Naider, Falmouth; Dr. Brown, Wansford; Mr. Peones, London; Mr. R. Hogg, London; Mr. Casella; Messrs. Kilner Brothers, London; Mr. Hopkins, Pontypridd; Mr. Emerson, Cambridge; Mr. Davies, Morriston; Mr. Lodge, St. Asaph; Dr. Evans, Cardiff; Mr. Davison, Brighton; Dr. M'Natt and Son, San Francisco; Mr. Field, Bolton; Dr. Henderson, Bedford; Mrs. Markham, Portsmouth; Mr. Bearley, Rowley Regis; Dr. Arling, Tunbridge Wells; Miss Bewley, London; Mr. James, Pentre; Mr. Jones, Ruthin; Dr. Joseph, Leeds; Dr. Ellis, Eastbourne; Mr. Jeffreyson, York; Dr. Eberle, Thirsk; Dr. Davies, Cymer; J. A. K.; Thor; M. M., Riegate; Alpha, Appleby; A. W., Bradford; Medicus, King's-cross; X. A.; H. W. P., Manchester; Medicus, Lincoln; J. F., York; C. B, Hampstead; Beta, Oldbury; Beta, York; Vindex, Ulverstone; Surgeon, Warwick; H. M., Woburn; E. H., Manchester; A. B. C., Newcastle-on-Tyne; Beaconsfield, Southport; Medicus, Darlington; Ringer; Proprietor, Norwood; W. B., Higham Ferrers; Medicus, Dulwich; A, Bracebridge; H. E., Leamington; Merthyr; H. W. J., Oldham; M. D.; Exchange; J. C., Derby; Zeta; Medicus; G. H. B., Carrington; P.; Mahdi; Spes; &c. &c.

Liverpool Courier, Sydney Morning Herald, Western Mail, Bristol Times, Keble's Gazette, Tipperary Leader, Birkenhead News, Cape Times, Cape of Good Hope Mercury, Keene's Bath Journal, Saturday Review, The Champion, &c., have been received.

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